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ABSTRACT

Intended for middle-level health workers with managerial responsibilities, this guide aims to help improve their efficiency in the support and supervision of community health workers and in the organization and continuous support of primary health care programs. It is a sequel to "The Primary Health Worker," available separately--see note. The guide is divided into four parts, each of which has several chapters. Part 1 explains in simple terms the general principles of management as a system of thought and the functions of management. Part 2 is concerned with personal relations, including how to encourage and coordinate a health team, how to communicate with groups of people, and how to supervise in a supportive way. Part 3 presents methods for the management of equipment, drugs, and the functioning of a health center. Part 4 deals with how to apply principles, methods, and management skills to the planning, implementation, and evaluation of a primary health care service. Each chapter begins with a statement of learning objectives, and each part contains, after the last chapter, a number of exercises to facilitate self-learning. The exercises are related to specific chapters and are coded accordingly. (YLB)

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ON BEING IN CHARGE

A GUIDE FOR MIDDLE-LEVEL MANAGEMENT IN PRIMARY HEALTH CARE

by

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WORLD HEALTH ORGANIZATION
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1980

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The World Health Organization is a specialized agency of the United Nations with primary responsibility for international health matters and public health. Through this organization, which was created in 1948, the health professions of more than 150 countries exchange their knowledge and experience with the aim of making possible the attainment by all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life.

By means of direct technical cooperation with its Member States, and by stimulating such cooperation among them, WHO promotes the development of comprehensive health services, the prevention and control of diseases, the improvement of environmental conditions, the development of health manpower, the coordination and development of biomedical and health services research, and the planning and implementation of health programmes.

These broad fields of endeavour encompass a wide variety of activities, such as developing systems of primary health care that reach the whole population of Member countries; promoting the health of mothers and children; combating malnutrition; controlling malaria and other communicable diseases including tuberculosis and leprosy; having achieved the eradication of smallpox, promoting mass immunization campaigns against a number of other preventable diseases; improving mental health; providing safe water supplies; and training health personnel of all categories.

Progress towards better health throughout the world also demands international cooperation in such matters as establishing international standards for biological substances, pesticides and pharmaceuticals; formulating environmental health criteria; recommending international nonproprietary names for drugs; administering the International Health Regulations; revising the International Classification of Diseases, Injuries, and Causes of Death; and collecting and disseminating health statistical information.

Further information on many aspects of WHO's work is presented in the Organization's publications.

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Introduction

This guide has been conceived and written as part of the efforts of the World Health Organization to help its Member States to reach the social target of "Health for all by the year 2000".

At the Alma-Ata International Conference on Primary Health Care, in 1978, it was declared that primary health care is the key to the attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life.

Primary or essential health care is the first level of contact of individuals, the family and community with the health system, bringing health care as close as possible to where people live and work; it is the first element of a continuing health-care process. It needs the participation of the people at local level in the planning and implementation of change, to provide services such as clean water, good food, education and sanitation.[a]

The World Health Organization published in 1977[b] for health auxiliaries and village health workers, and their teachers, "THE PRIMARY HEALTH WORKER: Working Guide; Guidelines for Training; Guidelines for Adaptation", which has now been adapted and translated in about 20 countries.

Experience with health auxiliaries and village health workers has shown that their success depends crucially on the support and supervision they receive. This present guide, "On being in charge", is intended to help health workers who are responsible for this support and supervision, and for the organization and continuous support of primary health care programmes. It is a sequel to The Primary Health Worker and also a contribution to the better management of health care systems, which is a current concern of so many health administrations.

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[a] Report of the International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978. Geneva, World Health Organization, 1978, pp 3-4.

[b] A revised edition has been published in 1980.

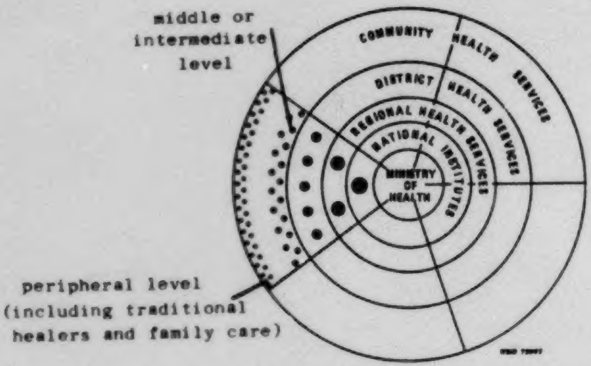
The management functions of health workers

Health workers with management responsibilities are first and foremost responsible for day-to-day health care, which includes also health education of the public, disease prevention and rehabilitation. Because these health workers are usually assigned to a geographic area, they are responsible not only for the support and supervision of a health team that includes community-based health workers, but also for other aspects of community development. Thus, although most health workers are not trained as managers, they have certain definite management functions in planning and organizing health activities. And now that it is recognized that primary health care depends on the employment of village health workers, with minimal training, the middle-level health worker will be called upon more and more to function as a manager, and consequently needs to be trained in management skills.

The titles, functions, training and responsibilities of health workers vary from place to place. The typical category of health worker for whom the guide is intended is a public health nurse/midwife or a medical assistant. But other health workers in charge of any primary health care activities also should find certain sections of it useful. Management principles apply to various functions for which a person is responsible; hence the title: On being in charge.

Most health services have a hierarchical structure, as shown in the following figure. There is a two-way relationship of referral and supervision at each management level. This guide deals with the relations at the middle or intermediate level of a health system. The health workers at the middle level are key persons in the health development component of national development. While general policy and certain technical guidelines may be conveyed from the central or provincial level of the health service, policy implementation in the form of viable health programmes depends largely on the quality of middle-level management.

Coverage of health services


middle or intermediate level
COMMUNITY HEALTH SERVICES
DISTRICT HEALTH SERVICES
REGIONAL HEALTH SERVICES
NATIONAL INSTITUTES
MINISTRY OF HEALTH
peripheral level (including traditional healers and family care)

The figure shows the organization and coverage of health care institutions in a country on the basis of the primary health care concept. The dots in a section of the circle represent health care institutions in one region of the country.

Management and the community

One of the goals of health management is to make health care available to every family in an area. To do this effectively, the health worker should work with the community to assess its health status and needs and to identify its health problems. He must be in touch with workers in other sectors such as agriculture and education, with political and religious leaders and with voluntary organizations. Together they may bring about improvements such as irrigation, protecting a well or spring, training traditional birth attendants or persuading voluntary groups to teach good nutritional practices. The health worker, as manager, has to plan and organize such programmes, often in difficult circumstances, with insufficient staff, equipment, drugs and transport. In such conditions, the selection of priorities, the efficient use of resources, and the continuous assessment of programme activities are of prime importance.

How can a person in charge of a health area, with a small staff and limited resources, serve so many people? The answer lies in working with the most important resource, the community itself. People are a nation's most precious resource. Community action can provide an opening for extending health care by building on what the people already know. Promoting and helping to organize such activities is an essential part of management.

It requires considerable skills in management to work in this way with the community, to lead a health team, and to support, supervise and evaluate health activities in an area. It is with learning such skills that this guide is concerned.

The benefits of good management in a health service

There is a recognized gap between what is known and what is done: between knowledge and its application. In simple terms, we know how to prevent measles but children still die from it. The same applies to a wide range of infectious, parasitic, nutritional and environment-based diseases that still afflict millions of people as if our medical knowledge did not exist.

There are no simple ways of applying knowledge in complex social situations. Questions arise about health priorities, the use of limited resources, the training of manpower and the evaluation of a service and its impact. But it is now recognized that applying the general principles of management can help in making priorities that are more revelant, in making informed judgements, and in using limited resources better. "Without efficient management, attempts to improve the organization, structure and functioning of services will meet with little success".[1]

Management principles can be applied at all levels of an organization - in the ministry of health, the regions, hospitals, health centres and district services - and equally to the clinical specialist as to the village health worker. It is a common mistake to regard management as a function of those at the top of the hierarchy only. To be effective, good management must permeate the whole organization. Well conceived programmes fail because of confusion at the periphery.

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[1] Modern management methods and the organization of health services, Geneva, World Health Organization, 1974 (Public Health Papers, No. 55).

Good management is to an organization what health is to the body: the smooth efficient functioning of all its parts. Good management highlights priorities adapts the service to the needs of a changing situation, makes the most of limited resources, improves the standard and quality of service, and maintains high staff morale. Good health management means good health care.

* * *

This book is a guide, not a textbook. This means that it is meant to be used and applied in particular practical circumstances. Just as one learns to examine a patient only by examining a patient, so one learns to manage only by managing.

It is not necessary to read this book from beginning to end, or to read all of it.

Method of study

This guide may be used in several ways, depending on circumstances:

1. An individual health worker providing health care services may be aware of some concrete problem that hampers his effectiveness and may wish to solve it on his own as far as possible. In that case, he should:

    - try to formulate clearly the nature of the problem
    - study the lists of contents and objectives of the guide
    - read only those chapters that deal with the problem, and perform the related exercises
    - apply in practice what he learns in this way, and
    - adapt or modify what he applies in accordance with his experience.

    For instance:

    > *It may happen, as one is about to dispense a pain-reliever, that it is found to be out of stock. The problem is presumably how to replenish stocks in time. The chapter on this topic in "Managing drugs" and the related exercises should help in dealing with the problem.*
    >
    > *If, in studying that chapter the problem is found to be a different one, e.g., lack of administrative authority to purchase drugs, the health worker will need to study that aspect as well before raising the issue with the supervisor.*

2. A health worker in charge of health care activities carried out by other people as a team, becomes aware of some issue of work organization that affects the team's efficiency. In that case he might

    - raise the issue with his team partners and identify the problem (without necessarily agreeing on one interpretation of its exact nature at this point);
    - then with the team members identify the chapters that deal with the problem as it has been interpreted by the team and agree to study them individually and do the relevant exercises;

- in a further staff meeting, exchange ideas and opinions and, by discussing the concrete issues, attempt to reach one agreed solution to the problem.

In applying the agreed solution as a team, the health worker-in-charge will soon learn how much further adaptation and improvement of the methods indicated by the guide are necessary in practical applications. He may discover also that some other chapter of the guide has something to offer in another aspect of management, and make provision for more in-service problem-solving group discussions.
For instance:

> *Somehow or other you lag behind schedule in the nutritional surveillance programme. Your team may come to the conclusion that targets were unrealistic in the first place. Objectives and perhaps activities also have to be replanned. After study of Chapter 3 (The Planning Function) in Part I and Chapter 1 (Planning Health Activities) in Part IV, your team agrees to a series of working sessions to revise the plan for the next financial year. In the process of replanning you realize that there may have been something wrong in the way the budget for the nutrition programme had been presented. Your next workshop will deal with that issue... .*

3. A health worker who solves management problems without difficulty as they arise is curious to know what it is that seems to trouble other people. In that case, the following approach is suggested:

- read Part I

- try out the exercises at the end of Part I

- new ideas about the subject can then be shared with other health workers who continue to be troubled by their own problems; This can be done with or without the help of the guide

- if in this process the health worker discovers an area of interest which seems to be dealt with in other Parts of the guide, they can then be studied

- when there is nothing more to be learned from the guide, it should be passed on to someone who can make use of it.

Arrangement of this book

Part I	explains in simple terms the general principles of management as a system of thought, and the functions of management.
Part II	is concerned with personal relations: how to encourage and coordinate a health team, to communicate with groups of people, and to supervise in a supportive way.
Part III	presents methods for the management of equipment and drugs and the functioning of a health centre.

Part IV deals with how to apply principles, methods and management skills to the planning, implementation and evaluation of an area health service.

A word about the layout of this guide:

It is divided into Parts (I to IV); each Part has several chapters.

Each chapter begins with a statement of learning objectives.

Each Part contains, after the last chapter, a number of exercises (see page 53 for example). Exercises relate to specific chapters, and are coded accordingly.

Practise as you learn

Little can be gained by only reading this book. It would be like reading a book on swimming in the middle of a desert. Only by applying what you read can you learn the skills of management.

Managing well makes work easier; it improves relations with colleagues; it improves the service we give to others; and it makes life and work more rewarding. Managing well leads to harmonious work; it lessens the irritations and frustrations that arise from confusion and bad organization. Managing well improves the quality of work and makes life more pleasant at the same time.

TRY OUT THE
EXERCISE
ON PAGE 13.

Exercise — Diagnosing management problems

(15 minutes)

The statements below describe some of the problems that may trouble a health worker. Read them and ask yourself whether you agree with the statement. Using the scale on the right side of the page, record the degree of your agreement with a tally (✓) - one for each statement.

Statements — Scale:	I totally disagree	I tend to disagree	I don't know	I tend to agree	I fully agree
1. I know exactly what tasks I am expected to do at all times					
2. We report to the Administration the things they like to hear!					
3. I regularly attend the scheduled staff meetings to review problems of implementation					
4. I have occasionally lagged behind schedule in delivering my services					
5. During his field visits, our team leader always takes time to listen to our difficulties					
6. I have experienced shortages of Government funds last year					
7. The targets we agreed upon with the community leaders are easily fulfilled					
8. Members of my team are fully cooperative					
9. My salary is regularly paid on time					
10. The communities I serve have expressed full appreciation of the services they received last year					

11. The statistics on the chart at the health centre are not up to date

12. I am adequately trained for what I am doing

13. Some of my colleagues are not adequately trained for what we are doing

14. There are frequent arguments among members of the team about our respective duties and responsibilities

15. Occasionally I am short of supplies in the performance of my job

16. Coordination with other Government Departments is quite easy

17. Our leader is not fully informed of our achievements

18. My job description has been reviewed and updated in the last three years

19. My partners in the team don't know exactly what I am expected to do at all times

20. I spend far too much time on recording and reporting

21. Our norms of performance are quite realistic

22. Our objectives are never fulfilled on time

Exercise: **Diagnosing management problems**

How to interpret your answers:

a) Report here your "total disagreement" answers to statements,
1 3 5 7 8 9 10 12 16 18 21 (circle as applicable)

b) Report here your "total agreement" answers to statements
2 4 6 11 13 14 15 17 19 20 22 (circle as applicable)

c) Report here your "I don't know" answers to statements (write numbers)

The circled entries under a) and b), and the Nos. entered under c) are very likely problem areas which management could help to solve or at least improve.

If you have circled 1, 4, 7, 21, 22 you are probably having problems in the PLANNING AREA.

If you have circled 6, 8, 9, 12, 13, 14 or 18 you might be interested in ORGANIZATION ISSUES.

If you circled 3, 16, 19, but also 1, 4 or 14 there are possible DIRECTION angles to your problems.

If you circled 3, 5, 12, 13, there is perhaps also some SUPERVISION shortcoming.

If the circled issues were 6, 11, 15, 17, 20, you are in the RESOURCES, MONITORING and CONTROL area.

Issues 2, 7 and 10 point to EVALUATION questions.

If you should have circled entries everywhere, then your trouble is the whole MANAGEMENT field!

PROCEED TO
THE TOPIC OF
YOUR CHOICE

Part I

What is Management ?

Chapter 1: Definitions and principles

LEARNING OBJECTIVES

After having read this chapter, and performed the exercises on page 54, the health worker should be able to:

- define management
- identify which principles of management apply in a variety of situations
- state three criteria applied by management to evaluate a health team's performance.

CHAPTER 1

DEFINITIONS AND PRINCIPLES

Management has existed ever since man has been organized into communities. It is sometimes thought to be an invention of the 20th century but this is not so. Wherever and whenever people have worked together in groups - to grow crops, to buy and sell, to wage war, to build a temple - there was management.

Although management is so old and universal, there is no agreed single definition of it; there are many to choose from - and in the end the reader can pick his own. Perhaps the shortest definition one will come across is:

MANAGEMENT IS GETTING
THINGS DONE.

The principle on which this definition is based is commitment to achievement, i.e., commitment to purposeful action, not to action for its own sake. To stress this notion of purpose the definition could be rewritten as follows: 'management is saying what one wants to be done, and then getting it done'. In other words, management sees first that objectives are specified and then that they are achieved.

I MANAGEMENT BY OBJECTIVES

Saying what one wants to accomplish is setting an objective (a goal, a purpose, a target). There are many kinds of objectives as the following example shows:

As leader of a health team, you may have set your objectives as follows:
Next year in the village of Venkatachoram,
- *there will be no case of diphtheria,*
- *there will be one protected well for every ten families,*
- *60% of the pregnant women will attend prenatal clinics and be delivered by a midwife,*
- *all known cases of tuberculosis will complete ten months' treatment with isoniazid,*

etc.

And for the week ending 27 July your team objectives at the Venkatachoram Health Centre might be:
- *to hold daily clinics from 9.00 a.m. to 3.00 p.m.*
- *to complete the drugs inventory and order replenishment from the District Health Officer,*
- *to hold a staff discussion meeting on child malnutrition at Venkatachoram,*
- *to have the jeep serviced at 45 000 km,*

etc.

Some of these objectives describe an aspect of the health status of a population at some later time; others state the services that will be made available to that population or the coverage of some eligible group; others list the tasks that will be performed in a particular week; but all should state:

- WHAT IS TO BE ACCOMPLISHED
- HOW MUCH OF IT
- WHERE IT IS TO BE DONE
- WHEN IT IS TO BE COMPLETED

(The reader may take time to check whether these are true of the above example).

Why should one set such objectives? An educationalist once wrote a humorous answer to that question; it contains a deep truth, as the reader will no doubt appreciate: "If you are not certain of where you are going, you may well end up somewhere else (and not even know it!)."

Now, merely saying where one intends to go does not take one there; nor is saying that one intends to produce some result enough to make it happen. But it helps, in several different ways.

Firstly, a clear statement of objectives makes it possible to evaulate how effective one is in approaching and reaching the objectives.

EFFECTIVENESS

Effectiveness is the degree to which a stated objective is being achieved; it is something that management tries to improve. For instance:

- *If a health team sets itself the target of 100 children to be immunized against diphtheria during the following week, and succeeds in immunizing 95, the work has been managed effectively. (However, should an epidemic of diphtheria occur how would you judge your performance?)*
- *If, by the end of 1984, the population of Venkatachoram has one protected well for every 22 families, and the target was one for every 10 families, everyone would agree that those in charge have not managed their programme effectively.*
- *If the Health Centre at Venkatachoram remains closed two days in the week ending 27 July, can one say that the objective of holding daily clinics has been achieved effectively?*

The management principle that underlies the comparison of objectives with achievement to judge effectiveness is familiar to the reader as 'learning from experience'. It complements and justifies the first management principle, i.e., management by objectives.

II LEARNING FROM EXPERIENCE

How does this principle apply? When a gap occurs between the objectives and results (or achievement) management makes an analysis of how the observed results were achieved, and discovers what caused the gap. Sometimes the causes cannot be removed in the short run: these are usually called constraints; others can be removed or remedied, and action is taken accordingly. In this process, learning takes place. This process is sometimes called feedback (of information from experience to decision for action). There are other kinds of feedback from which management learns from experience; they will be discussed later.

SUMMARY

WE HAVE SO FAR DISCUSSED THE PRINCIPLE OF MANAGEMENT BY OBJECTIVES; THE CONCEPTS OF EFFECTIVENESS, WHICH UNDERLIES THIS PRINCIPLE, AND OF EVALUATION, WHICH IT IMPLIES; AND THE PRINCIPLE OF LEARNING FROM EXPERIENCE, WHICH IT MAKES POSSIBLE.

A second reason for specifying objectives clearly is that it enables one to decide HOW to achieve them, i.e., stating the END helps in selecting the MEANS.

There is a well-known ambiguity about ends and means:

When a pump has been installed, when a traditional birth attendant (TBA) has been retrained, when a guide for middle management has been produced, should these be considered as ends or means?

When people have accepted the use of latrines, when children have been immunized, when one evaluates one's effectiveness, can we talk of ends or means?

The answer is, of course, both. Every end may be seen as a means to a higher end, almost indefinitely; trained staff is a means of delivering better services; these in turn are a means of raising the level of health of a community.

In the following definition of management both ends and means are mentioned:

MANAGEMENT IS GETTING
THINGS DONE THROUGH PEOPLE.

This definition should not be read to mean only that someone (a manager) commands and others (people) execute, although this happens in practice. Rather it should be interpreted to mean that people are the most important means, or resource, for getting things done. Consequently, one Part of this guide deals with people (or manpower).

However important manpower is, it is not the only resource that will need to be managed to achieve stated objectives, and the reader will have no difficulty in naming the other resources.

A convenient trick for remembering types of resources is called 'the 3 Ms'. Manpower has already been named. Another type is Materials, i.e., equipment and supplies used or consumed in achieving objectives. The third type of resource is, evidently, Money, without which the first two types often would not be available. Remember:

MANPOWER - MATERIALS - MONEY

These will be referred to frequently in this guide, and specifically in Parts II and III.

There is another useful definition of management:

MANAGEMENT IS THE
EFFICIENT USE OF RESOURCES

It is well recognized in health work, as in other human activities, that the different types of resources used for achieving objectives must be carefully balanced. The key concept in the above definition is

EFFICIENCY

which is concerned with the balanced use of resources.

Firstly, balance among different types of manpower is required; for instance:

- *A surgeon would be unable to perform an operation unless someone gave the anaesthetic, and someone assisted with instrumentation, not to mention the persons in charge of sterilization, the cleaners, the electrician, etc.*

The general principle of management that the example illustrates is normally called division of labour: work must be shared by, or divided among, a number of different categories of technically skilled people.

III DIVISION OF LABOUR

When this principle is correctly applied and work is divided, or distributed, among members of a group, the group becomes a team. In a team, and generally when there is specialization and division of labour - each kind of manpower exercising its own skills towards achieving the objectives, management will consist in assigning the right (balanced) proportion of each kind of staff to the job in hand.

The team approach is the way that management attempts to bring about balance among the different people concerned.

But balance must be maintained also between the other types of resources mentioned; for instance:

> - *If there is insufficient equipment (e.g., syringes) or shortage of supplies (e.g., petrol), a health team may not be able to meet its immunization target.*
> - *When money runs short, the salaries cannot be paid on time, staff morale drops, and that is not conducive to fulfilling targets either.*

It is therefore a prime concern of management that funds and stocks of materials be adequate for the staff in position. This is implied in the phrase "efficient use of resources" in the definition of management on page 23.

If all resources were plentiful and free this concept of efficiency might not be needed. But some, and often many, resources are scarce and costly. For instance:

> *In Jaya Province there is an ample supply of educated people to man the health services. But the local authorities are poor and their budget does not allow them to fill vacancies without cutting down on supplies, such as petrol for transport or essential drugs (both of which are imported, and therefore costly).*

This is a typical management dilemma which illustrates one more concept and one more principle.

In everyday life we see that some commodities tend to become scarce, either because their production falls or demand for consumption rises. As a result, they become more and more expensive. When a commodity becomes scarce, or - which amounts to the same - more expensive, ordinary people buy less of it; in other words, they economize. This concept of

ECONOMY OF SCARCE RESOURCES

is applied by almost everyone in daily life, with more or less success. There is little need to expand on it here. The related principle: substitution of resources, is also widely applied in daily life.

IV SUBSTITUTION OF RESOURCES

Often, when the resources that are normally used to provide services become scarce or too expensive, different resources or a different balance of the resources may be used to produce the intended results. For instance:

- *When purchasing food for a hospital kitchen, the cheap produce in season can be substituted for other similar but more expensive food if it provides equal nourishment.*
- *When petrol becomes more and more costly, bicycles may be substituted for motorized transport. The savings on petrol, vehicle maintenance and drivers can be better spent on more field staff (who will compensate for the extra time lost on transport) and thus achieve the same coverage of population at Venkatachoram.*

One particular type of substitution of resources is labour substitution (e.g., using volunteers or auxiliaries for specified tasks formerly done by professionals). This subject is discussed later.

SUMMARY

WE HAVE CONSIDERED THE PRINCIPLES OF MANAGEMENT THAT GOVERN THE USE OF RESOURCES TO ACHIEVE EFFICIENCY AND ECONOMY OF SCARCE RESOURCES.

THESE ARE DIVISION OF LABOUR AND SUBSTITUTION OF RESOURCES (INCLUDING LABOUR SUBSTITUTION).

Before proceeding further one more definition of management may be considered briefly; it brings together many of the points discussed so far:

MANAGEMENT IS TO MAKE EFFICIENT USE OF RESOURCES
AND TO GET PEOPLE TO WORK HARMONIOUSLY TOGETHER
IN ORDER TO ACHIEVE OBJECTIVES.

As has been noted on page 21, one of the advantages of stating objectives is that it helps in deciding HOW to reach them, i.e., the ACTIVITIES needed to achieve objectives effectively, and the methods and organization needed to ensure that people work harmoniously towards the objectives while using resources efficiently.

The study of work activities and the organization of work relations form a major area of management. The principle that governs it is that of convergence of work.

V CONVERGENCE OF WORK

This means that work activities should be so designed and directed as to support each other towards the achievement of objectives. It also implies that working relations should contribute to the success of each activity, and so to general effectiveness.

In general, health activities are studied, described and delivered under three main headings, namely,

- SERVICE ACTIVITIES
- DEVELOPMENT ACTIVITIES
- SUPPORT ACTIVITIES.

Service activities (e.g., vaccinations) usually require some preceding development activity (e.g., training of vaccinators), and some continuous support activities (e.g., supplies). These need to be managed to ensure proper convergence, balance of resources, and harmonious work relations, and ultimately to produce the intended results.

Specific work activities must be brought into LOGICAL relations with each other. For instance:

> *To deliver services trained staff is required. To train staff certain educational objectives are set, and to achieve these objectives certain training activities are carried out, also in relation to each other, e.g., designing a curriculum, preparing learning materials, selecting trainees, recruiting trainers, etc.*

Activities must also have a TIME relation or sequence (i.e., a chronological relation). For instance:

> *- Trainers can be recruited first, asked to prepare the curriculum and the learning materials, and then to select trainees and start teaching; but other time sequences can be thought of. (Can you suggest one?)*
> *- Furthermore, training can be undertaken either before staff recruitment (and therefore before starting to deliver the services); or training can be given "on-the-job", i.e., after staff recruitment, and at the same time as service delivery, etc.*

Time relation also includes frequency. In a health team, some activities occur only once or rarely (e.g., development activities), others more often (e.g., services), while some are routine everyday activities (e.g., support).

There is also a SPATIAL relation between activities. For instance:

> *The services (e.g., immunizations) are delivered in the homes at Venkatachoram; on-the-job training may take place elsewhere in the field; and formal training is given in a class-room at the health centre, or at Jaya's Training College; the curriculum may have to be designed in the capital city ...; etc.*

Analysis and documentation of the logical, chronological and spatial relations of work activities give precious information for efficiently managing resources, such as arranging when and where to send supplies, reserving class-room facilities, etc. This later enables management to perform the function of monitoring and control.

The working relations between people are usually described as FUNCTIONAL and STRUCTURAL. Functional relations are derived direct from the technical nature of the work; and where, when and in which sequence it takes place; e.g., the working relations of a surgical team. Structural relations pertain to administrative rules and standards; and in particular to the authority and responsibility assigned to individuals, e.g., who engages and dismisses staff, how much a medical officer may spend without referring to higher authorities, to whom the public health nurse must submit her reports and accounts, etc.

In this area of relations between people and their activities and the resources they use, management is based on one major principle of organization: When work is clearly defined, working relations are easily determined. This may be briefly stated as follows:

VI FUNCTIONS DETERMINE STRUCTURE

A major concern in working relations is to enable decisions to be made where and when necessary, by the most suitable person. In a health team, every member is called on to make decisions at one time or other; else that team would be paralyzed. (This is especially true when the team leader is absent).

A situation can arise in which a health worker who followed the rules strictly would do nothing, and would then be blamed for it because, say, the situation was an emergency. What is needed then is the application of the principles of division of labour (see p. 24) and structure being determined by functions, and of a third principle, which states that responsibility or authority is delegated to the lowest level at which it can be competently discharged.

VII DELEGATION

Delegation takes place when somebody's authority is lent to another person, conditionally or not, so as to enable that person to take responsibility when the occasion arises. This management principle has been enunciated with a humorous twist in the words: "Never do yourself what another can do for you as well as you would". This advice is for the busy manager, but it could well apply in everybody's family life, as well as in the performance of one's tasks as part of a health team.

SUMMARY

TO BE EFFECTIVE AND EFFICIENT, HEALTH CARE ACTIVITIES SHOULD SUPPORT EACH OTHER; THIS IS THE CONVERGENCE PRINCIPLE. THE WORKING RELATIONS OF HEALTH WORKERS SHOULD BE GUIDED BY THE PRINCIPLE THAT FUNCTIONS DETERMINE STRUCTURE. FROM THIS FOLLOWS ANOTHER PRINCIPLE - THE DELEGATION OF AUTHORITY.

Management needs information if it is to make the right decision for action. At the same time information can easily handicap management, if it is not of the right kind, at the right time, and in the right hands; or if it is too abundant, undigested and confusing. Many management studies have dealt with information, and we shall highlight here two principles which guide management in this respect. Both deal with the relation between decisions and the information they require.

We have already come across the expression 'monitoring and control', and this function will be reviewed in the next chapter. Here, it is only necessary to know what these terms mean. Monitoring should be understood as maintaining close observation over the actual occurrence of activities, the amounts of resources consumed, and the products and results that ensue. Monitoring provides critical information for day-to-day management decisions. The object of those decisions is control of the programme or service. For instance:

> *A curriculum has been constructed. Trainees have designed the learning materials required for the training workshop for traditional birth attendants (TBA), which is scheduled in the first week of next month. Stencils have been typed and the duplicating machine prepared, but it now appears that stocks of paper are down to 100 sheets, and 1000 are needed. It usually takes three months to get stocks replenished from the District headquarters.*

MONITORING the paper stocks over the past few months would have enabled the officer-in-charge of the health team to re-order paper in time. As matters stand, he does not CONTROL the situation. Unless he can borrow 1000 sheets of duplicating paper, workshop documentation will not be available on time.

In this context too, it is important to note that management need not know everything that takes place. In particular, a programme that runs well does not call usually for control decisions. It is more important to be informed about exceptions, i.e., things that do not go so well, which may require urgent decisions. The first of the two management principles that deal with information is:

VIII MANAGEMENT BY EXCEPTION

In effect this means two things: First: Do not be overloaded with routine, unnecessary information. Be selective. Keep your mind available for critical information, on which you will be required to ACT. For instance:

> *If you were in charge of fifty beds, you would not want to know every day almost every patient's blood pressure, temperature, pulse rate, respiration rate, bowel movements, volume of fluids passed, etc. Just one of these elements of information might be all there is to watch in each case to manage patients effectively and efficiently.*

Second. Make BIG decisions FIRST. Being overloaded with petty decisions may mean neglect of more important ones, or what has been called 'postponing decisions until they become unnecessary'. In short, management by exception means selectivity in information and priority in decision.

IX SHORTEST DECISION-PATH

The last management principle we shall review in this chapter, the principle of the shortest decision-path, deals with the issue: WHO should make WHICH decision? (and often WHEN and WHERE, as well). Answering this type of question will help in clarifying the question of DELEGATION of authority referred to earlier.

Applying this principle means that decisions must be made as closely as possible in time and place to the object of the decision and to those affected by it. This saves time and work (e.g., to transmit information) and also ensures that decisions can take full account of the actual circumstances which demand the decisions and in which they are put into effect.

SUMMARY

DEALING WITH THE INFORMATION NEEDED FOR MANAGEMENT, WE HIGHLIGHT TWO PRINCIPLES: MANAGEMENT BY EXCEPTION, FOR SELECTIVITY AND PRIORITY; AND THE SHORTEST DECISION-PATH, WHICH INDICATES WHO IS IN THE BEST POSITION TO MAKE DECISIONS, IN RELATION TO THE OBJECT AND THE CIRCUMSTANCES OF THE DECISIONS.

We have not seen a new definition of management for some time. Have you one to suggest?

MANAGEMENT IS.....................................

Now, readers may check their understanding of management by doing the Exercises on page 54 .

Chapter 2: The main functions of management

LEARNING OBJECTIVES

After having read this chapter and performed the exercises on page 55, the health worker should be able to:

- name three broad functions of management and show how they relate to one another
- identify management decisions required in a variety of situations
- describe the decision-making process and specify the managerial elements required for a timely decision.

CHAPTER 2

THE MAIN FUNCTIONS OF MANAGEMENT

A function may be defined as

> *A BROAD AREA OF RESPONSIBILITY COMPOSED OF
> MANY ACTIVITIES AIMED AT ACHIEVING A
> PREDETERMINED OBJECTIVE.*

Management is commonly viewed as consisting of many functions thus defined. This chapter is about three main management functions required of a health team.

One way of identifying management functions is to review the principles enunciated in the previous chapter and look for the broad areas of responsibility they imply. For instance:

> *- We have seen in Chapter 1 that the principle of MANAGEMENT BY OBJECTIVES implies the specification of* ***WHAT*** *is to be accomplished,* ***HOW MUCH*** *of it,* ***WHERE*** *it is to be carried out,* ***WHEN*** *it is to be accomplished.*

Each of these questions needs one or more planning decisions, and the sum of the planning decisions required by the health team determines the PLANNING functions of management in that team.

Another instance:

> *We have seen in Chapter 1 that the principle of DELEGATION is concerned with issues of authority and responsibility, i.e., of functional relations between people engaged in purposeful activity.*

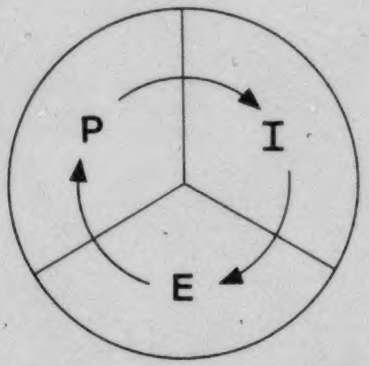
The type of decisions involved is concerned with the organization of working relations to ensure effective and efficient implementation. Organizational decisions are part of the IMPLEMENTATION function of management of the health team.

A third instance:

> *We have seen in Chapter 1 the principle of LEARNING FROM EXPERIENCE, which entails the analysis of gaps between desired results and achievement, and the feedback of information for decision making*

The judgement of performance implied in this example points to another management function, the EVALUATION function, which plays an important part in the success of a health team.

As an aid to memory these three broad functions of management are sometimes presented graphically as follows:



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The diagram shows PLANNING, IMPLEMENTATION and EVALUATION as the three slices of a PIE. But what matters are the arrows that link the three functions to emphasize the continuous cycle of management.

The following chapters of Part I will deal successively with management functions:

The PLANNING function, Chapter 3;

The IMPLEMENTATION function, Chapter 4; and

The EVALUATION function, Chapter 5.

However, before proceeding to a detailed review of management functions, it will be useful to consider one more definition of management:

MANAGEMENT IS TO MAKE DECISIONS

This definition is more general than those given in the previous chapter. It stresses the most important element of management: decision-making. A decision is a choice between two or more courses of action. It can be a resolve to act: "this shall be done"; or, sometimes, not to act: "this shall go on as before"; Some decisions deal with quantity:"...more of this, less of that, none of the others"; some deal with quality: "...higher coverage, better services". In management terms a decision is an answer to a question about possible courses of action, answers which could be stated simply as: yes, no, more, none. "I don't know" in this context is indecision.

To make a decision between different courses of action one needs INFORMATION and DECISION RULES. For instance:

One management decision in health team X is whether to delegate the responsibility for intravenous injections from one staff category (A) to another (B). The relevant decision rule might be: "If i.v. injections take more than 20% of A's work time, and if B, after training, can give 10 i.v. injections without fault,

> *then A can authorize B to take over this task". Information is needed to show that the injections take over 20% of A's time - that B has been trained - that B has passed the test satisfactorily.*

One further requirement for decision-making is, of course, a well identified decision-maker, or decision-making body, to whom the authority and responsibility for making the decision concerned has been clearly assigned. A common problem of management is that no one is clearly responsible for some urgently needed decision. Another problem arises when someone is responsible but has not been given the necessary authority. For instance:

> *The team's jeep has broken down in the bush. The driver, after securing police watch over the vehicle, reports to his officer-in-charge who is "responsible for the maintenance and upkeep of transport". But the breakdown-lorry belongs to the Ministry of Transport and Public Works, and the charge for picking up the jeep is likely to exceed $200. The officer-in-charge has authority to spend up to $10 on repairs, and the district health officer up to $100 only. The provincial health administration has already spent its budget allotment for transport. The questions are: WHO is the decision-maker, and WHERE is he?*

Another element of decision-making is ensuring that the decision, once made, is known to all concerned. This is COMMUNICATION. Many people would even say that all concerned should know beforehand that a decision is about to be made. For often knowledge about the need for a decision, and participation in decision-making, are probably the best assurances that the decision will subsequently be acted upon. Whichever way one looks at it, one thing is essential: that communication takes place between those who make decisions, those who implement them, and the people affected by the decisions. At the least, the decision itself should be communicated, but also, preferably, the supporting information, the decision rules, and - not least - how the decision should be carried out.

One more aspect of decision-making deserves a brief note at this point: To be useful, i.e., to influence the situation that calls for it, a decision must be TIMELY, or WELL-TIMED; i.e., it should meet the needs of the moment, and should not be unnecessarily delayed. In the above example, every day matters; postponement for whatever reason will affect economy, efficiency and the effectiveness of the team. The best way to ensure that a decision is made when it is needed is to designate beforehand, for all concerned, the decision-maker, to state the decision rule clearly, and to have the necessary information at hand.

In reviewing the functions of management we should try to identify the critical decisions required; and specify the information, rules and communication needs of the decision process.

SUMMARY

THREE BROAD AREAS OF RESPONSIBILITY, OR FUNCTIONS, OF MANAGEMENT HAVE BEEN DERIVED FROM SOME OF THE PRINCIPLES REVIEWED IN CHAPTER 1: THE PLANNING, THE IMPLEMENTATION, AND THE EVALUATION FUNCTIONS. EVERY FUNCTION OF MANAGEMENT NEEDS TIMELY DECISION-MAKING, WHICH IN TURN NEEDS A DECISION-MAKER, INFORMATION, DECISION RULES AND COMMUNICATION. THESE SHOULD BE IDENTIFIED FOR EACH MANAGEMENT FUNCTION.

Chapter 3: The planning function

LEARNING OBJECTIVES

After having read this chapter, and performed the exercises on page 56, the health worker should be able to

- describe the planning function of management in relation to implementation and evaluation
- systematically identify planning decisions relating to objectives, activities and resources
- specify the team members' role in planning.

CHAPTER 3

THE PLANNING FUNCTION

In the previous chapter the principle of management by objectives was seen to be very closely related to the planning function of management. But other principles discussed in Chapter 1 also concern this function. The principle of division of labour has a direct bearing on the planning of manpower and its organization. A good plan should give a clear picture of the tasks to be accomplished and of the manpower assigned to accomplish them. Similarly the principle of economizing on scarce resources concerns planning, because identifying resource needs and preparing budgets are important aspects of planning. The reader may pause for a while and review the other principles in Chapter 1 to see which of them, if any, relate to the planning function.

What, then, is the planning function of management? One way to regard planning is as an attempt to answer questions before they arise in real life; as anticipating as many implementation decisions as possible by foreseeing as many implementation problems as possible, and deriving principles and setting rules for their resolution. In short, planning may be said to be:

MAKING IMPLEMENTATION
DECISIONS BEFORE IMPLEMENTATION.

But it is more than that; many people view planning as

MAKING EVALUATION
DECISIONS BEFORE IMPLEMENTATION.

Implementation decisions commonly deal with HOW implementation can best proceed: evaluation decisions deal with WHY implementation should proceed as it does. For instance:

> *There is an old argument between the advocates of special mass immunization campaigns and advocates of integrating immunization programmes with general health programmes. One implementation decision in your health area in this respect might be to discontinue the mobile teams of specialized vaccinators, and to include immunization in the work of some local health worker. The related decision rules would indicate on what basis this shift should be introduced, such as; "when a coverage of 80% has been reached" and/or "when the cost per immunization exceeds $0.50; and/or "when we get our own freeze-dried vaccine", etc. Note that deciding on such criteria is deciding about what is going to be evaluated.*

Planning, therefore, includes the specificiation of some evaluation criteria, rules, norms, etc., that will provide a basis for implementation decisions.

Having thus discussed the nature of planning in relation to implementation and evaluation we now turn to the specific planning decisions to be made. There are three main types of planning decisions: they deal with:

- OBJECTIVES
- ACTIVITIES, and
- RESOURCES.

What is the precise nature of planning decisions in respect of OBJECTIVES?

- WHICH? The first planning decision concerns which problems deserve
priority attention: this entails knowledge of what problems
- WHY? there are, and judgement as to why they deserve priority attention.
A problem may be a gap between what is and what could be, but
problems may also be the specific obstacles to bridging that
gap. Furthermore, planning decisions involve identifying the
- WHO? persons at risk because of the problem, or exposed to or
- WHERE? affected by it; where they live and work, their social class,
and the 'catchment area' where they can be reached. Finally,
- HOW MUCH? the planning decision that matters most is the extent of problem
reduction that is aimed at, and the target time for achieving
it. In short, then, the planning function means analysing
the problems and deciding on the changes to be made.

If such are planning decisions about objectives, what are the decisions needed in respect of the health team's ACTIVITIES towards achieving the objectives?

The first decision will be the identification of which activities
WHICH? are needed, perhaps in broad categories of service, development,
and support activities. For each activity, the target
individuals, group or population to whom the activity
WHOM? addresses itself will have to be identified. (These are not
necessarily the people affected by the problem; for example,
mothers may be educated about child nutrition). Then a
HOW MUCH? decision is needed about the amounts of each type of activity
required to reach the target group; for example, one, two or
HOW? three visits. Often there is a choice as to how the activities
can be performed: there may be a variety of techniques, methods,
and institutional frameworks from which to draw for specified
activities. A decision must be made about the right approach,
given the circumstances. Further decisions concern
timing, sequence, frequency and location; and the assignment
BY WHOM? of tasks and responsibilities to individual members of the health
team. In short the planning function entails the detailed
design of the activities of the team.

Beyond specifying these activities, planning decisions will be required in
respect of RESOURCES. What are these decisions? In essence
they differ from the preceding ones in being much more
WHICH? quantitative. As soon as the nature of the resources required
viz., staff, equipment and supplies, has been identified, decisions
HOW MUCH? will be made about the amounts required of each type; this will
enable costs to be estimated, and thus decisions to be made about

WHERE?
WHEN?
WHENCE?
WHO?

an appropriate budget level. Additionally, logistic considerations will help in deciding where resources should come from and be sent when they are needed to implement the specified activities. In particular, some decision will be needed as to where money will come from, i.e., identifying financing arrangements in which a variety of sources of funds, from communities to external agencies, may contribute varying proportions of the budget. The planning function is, then, concerned with the specification and quantification of the resources.

From the above review, it should be clear to the reader that the planning function must be a collective undertaking. No one "manager" could ever do the analysis and undertake the designs and quantifications needed for planning the work of a health team. It takes the cooperation of all who have useful information, knowledge and power of decision, to achieve realistic plans. This stresses once more that management is a shared responsibility, and that each member of the team has a share of this responsibility.

The question of HOW to fulfil the planning function of management is discussed in Part IV, Chapter 1.

Details on principles, methods and techniques may be found in the vast literature on the subject; one comprehensive source which the reader will find useful is:

Bainbridge, J. & Sapirie, S.: Health Project Management, Part I. WHO Offset Publication No. 13 (Geneva, 1974).

SUMMARY

THE PLANNING FUNCTION OF MANAGEMENT IN A HEALTH TEAM IS TO ANTICIPATE IMPLEMENTATION AND EVALUATION DECISIONS, AND TO SET A FUTURE COURSE OF ACTION FOR THE TEAM. THE PLANNING FUNCTION MAINLY DEALS WITH DECISIONS ABOUT OBJECTIVES, ACTIVITIES AND RESOURCES, BY SYSTEMATICALLY CONSIDERING WHAT, WHERE, WHEN, HOW MUCH, AND HOW THE TEAM WILL IMPLEMENT AND EVALUATE. BECAUSE OF ITS COMPLEXITY THE PLANNING FUNCTION IS BEST SHARED BY ALL TEAM MEMBERS.

Chapter 4: The implementation function

LEARNING OBJECTIVES

After having read this chapter and performed the exercises on page 57, the health worker should be able to:

- list and relate the functions of management dealing with the execution of activities, the use of human and physical resources, and information.
- identify specific issues in implementation that call for organization, direction and supervision.
- specify the information processes required to support monitoring and control decisions.

CHAPTER 4

THE IMPLEMENTATION FUNCTION

Without implementation, plans remain theoretical. The implementation functions of management are the most important, therefore, in translating into practice the principles discussed in Chapter 1.

Among these, the principles of division of labour and of delegation determine particularly those functions of management that deal with personal relationships, whereas the principles of economy and substitution of resources will shape the management functions applicable to equipment, supplies and funds. The principle of management by exception, which applies primarily to information, will affect the evaluation function and, through it, many implementation decisions. It must be kept in mind that management is concerned with achievement and performance in implementation.

Before proceeding to a review of the implementation functions of management, we should consider what are the main decisions that must be taken in implementation? The first type of decisions consists of all those that ensure that programme ACTIVITIES are executed as planned and services delivered as intended.

The second type of decisions concerns the deployment of MANPOWER in the right amount, at the right time and in the right place, to perform these activities. The third type deals with the mobilization (putting into action) and allocation of the physical and financial RESOURCES needed to perform the activities. A fourth type is decisions about the INFORMATION needed, its processing, and its communication in support of the previous decisions and of evaluation. There are therefore four types of implementation decisions. They deal with

- EXECUTION OF ACTIVITIES,
- DEPLOYMENT OF MANPOWER (bringing manpower into effective action),
- ALLOCATION OF RESOURCES, and
- PROCESSING OF INFORMATION.

DECISIONS CONCERNING THE EXECUTION OF ACTIVITIES.

What is the exact nature of the decisions required, day to day, for the execution of service, development and suport activities? For any one activity that is due for implementation according to plan, management has to ascertain that all necessary preceding activities have been executed on time, and have produced the required outputs in the right amounts and of the right quality. For instance:

Retraining of traditional birth attendants (TBA) is due next week. Necessary preceding activities were a) selection of candidate TBAs; b) preparation of learning materials; c) assignment of tutors; and d) class-room arrangements. Management checks *that selected candidates have been informed, that the right number of workshop folders have been completed, that tutors and class-room are available and ready.*

The outcome of this check is either a "Go ahead" decision (i.e., proceed with the retraining activity as scheduled) or a decision to modify the plan by altering the content, timing, or spatial arrangements of the planned activity. Occasionally the decision may be to cancel the planned activity, or to implement a 'contingency plan' (i.e., an alternative plan that has been prepared to take account of unexpected circumstances), or to improvise (i.e., to decide on a different action without special preparation). Obviously such decisions depend on the information available to the decision-maker, on his terms of reference, and on the operating rules that he sets for himself or have been imposed on him. In management this is called the monitoring and control function. It is discussed below under Allocation of Resources (page 44).

DECISIONS CONCERNING THE DEPLOYMENT OF MANPOWER.

The key management decisions that deal with deployment of manpower to carry out the planned activities may be grouped under three broad headings, viz.,

- ORGANIZING
- DIRECTING
- SUPERVISING.

The following represent the decisions that relate to the organization function of management:

> For activities x, y, z, the following staff will perform the specified tasks...: an assignment decision.
>
> To implement activities x, y, z, in relation to other continuing activities, the following communication channels will be set up and will function between the staff concerned...: a communication decision.
>
> For the proper execution of activities x, y, z, the following coordination mechanisms will be applied...: a coordination decision.
> At intervals during execution, meetings will be held to resolve issues of implementation that may arise ...: another coordination decision.
>
> To assist staff to perform their assigned tasks, the following in-service training will take place...: a staff-development decision.

These assignments, communication, coordination and staff-development decisions, which pertain to the ORGANIZING function of management, are described in more detail with examples, in Part II, Chapters 1 and 3.

Exampler of decisions pertaining to the DIRECTION of activities are:

> To carry out their respective tasks, staff assigned to activities x, y, z, are authorized to do the following...: a delegation decision.
>
> In the performance of their duties, the staff assigned to activities x, y, s, will be answerable to the following responsible officer(s) ...: an administrative control decision.
>
> For the day-to-day direction of activities x, y, z, Mrs P.H.N. (the activity leader) will exercise control over the following sections and staff ...: a decision about 'span of control'.
>
> To ensure that all engaged in activities x, y, z, as well as the users or consumers of the services, have a common understanding of the objectives of these activities and how to achieve them, the following consultation mechanism shall be established and shall function ...: a promotional decision. The following incentives will be provided to encourage participation and performance ...: also a promotional decision.

Such decisions about delegation, administrative control, promotional support, etc., are dealt with here as part of the DIRECTING functions of management. These functions are further discussed in Part II, Chapter 2.

The common SUPERVISORY decisions are concerned with

- specifying agreed work standards and norms of performance, as well as the procedures for the appraisal of staff performance.
- applying specified activity records and report forms, as well as the reporting procedures e.g., frequency, to whom, etc.
- specifying and applying ways of resolving conflict and specifying the conditions of applying them.

These types of decisions belong to the SUPERVISORY function of management. They are further elaborated in Part II, Chapter 4.

It may be noted that ORGANIZING - DIRECTING - SUPERVISING are not entirely separate functions, and that some of the decisions mentioned above under one heading might well be placed under a different one by another author.

DECISIONS ABOUT THE ALLOCATION OF RESOURCES.

What are the management functions in connection with the ALLOCATION OF RESOURCES at the implementation stage? The type of decision depends on the nature of the resource. Resources may be physical resources such as equipment and supplies including drugs, money, time and space, and information. Information is a special type of resource, especially in the form of records. Decisions are of the following types:

- MONITORING AND CONTROL: All renewable resources need monitoring and control. This means watching availability, consumption, use (i.e., quantity); watching quality (quality control); and, as the case may be, re-ordering, issuing, discarding, etc.

  Time, (a non-renewable resource) is similarly subject to monitoring and control decisions, with the object of using efficiently the available time.

- LOGISTIC: Most physical resources also imply a LOGISTIC decision, i.e., the procurement, clearance, storage, forwarding (or dispatching), distribution, and replenishment of goods, both consumable, e.g., drugs and non-consumable, e.g. vehicles.

- ACCOUNTING: Money, as a renewable resource, is subject to accounting, a special form of monitoring and control, the purpose of which is to keep track of and compare receipts and expenditure, and ensure that the funds are expended for the purposes for which they were allocated and not for other purposes.

- ORGANIZATIONAL: Some resources, like work-space and records, need organization; in general, physical resources also need some form of organizational decisions, e.g., in regard to storage.

Organizational decisions about resources, and the monitoring and control decisions that come under accounting and logistics, form the greater part of management in respect of resources. This subject is further discussed in Part III.

DECISIONS CONCERNING THE PROCESSING OF INFORMATION.

What are the decisions entailed in the management of information? We have seen that information is associated with decision-making in general, and in particular with the organizing, directing and supervising functions of management, as well as with the management of manpower and resources during implementation. The key decisions regarding information are as follows:

WHY? For each decision reviewed so far in this chapter, there is a
specific information requirement. A decision must be made as
WHAT? to what constitutes the adequate amount and quality of information.
The criteria that information must satisfy in support of decision-making are: relevance, validity, reliability, timeliness, and cheapness.
Once the nature of the information is settled, management must
WHENCE? decide from which source(s) the particular information needed
should be obtained or collected.
HOW? Then the question of processing arises, i.e., how information should
be collated (put together), analysed, recorded, reported, etc.
These may be done at different places, by different people.
Assigning these tasks is clearly a management decision.
Depending on the extent to which the decision for which information
TO WHOM? is needed has been specified, it should be easy to decide to whom
the information should be communicated.

It can be seen that the types of decisions that concern information-processing are similar to those reviewed earlier in Part I, Chapter 3. Several aspects of this management function are discussed in more detail in Part II, Chapter 4.

This completes the overview of the management functions in implementation. It should be clear to the reader that no one manager or decision-maker could cope with the whole of the function outlined above. Obviously the management function in implementation is a shared responsibility; who has which share must be clearly specified.

SUMMARY

IMPLEMENTATION FUNCTIONS OF MANAGEMENT DEAL WITH DAY-TO-DAY DECISIONS ABOUT THE TIMELY EXECUTION OF ACTIVITIES; WITH THE ORGANIZATION, DIRECTION AND SUPERVISION OF MANPOWER; WITH THE MOBILIZATION, ALLOCATION, AND MONITORING AND CONTROL OF PHYSICAL AND FINANCIAL RESOURCES; AND WITH THE PROCESSING AND COMMUNICATION OF THE NECESSARY INFORMATION.

THESE FUNCTIONS ARE SHARED BY THE HEALTH TEAM.

1.5

Chapter 5: The evaluation function

LEARNING OBJECTIVES

After having read this chapter and performed the exercises on page 58, the health worker should be able to:

- list and relate the main management decisions in evaluation
- select indicators for evaluating common primary health care services
- explain the process of assessing the factors contributing to, or inhibiting, the achievement of desired results.

CHAPTER 5

THE EVALUATION FUNCTION

We introduced evaluation as a by-product of the principles of 'management by objectives', and 'learning from experience'. Evaluation also is related to the principle of management by exception.

To evaluate is simply defined as

FINDING OUT THE VALUE OF SOMETHING.

This word has many synonyms. E.g., the Oxford Dictionary states that to estimate, to assess, and to appraise have very nearly the same original meaning as to evaluate. To avoid confusion it is important to use these terms consistently in specific contexts.

The reader will recall what was said in Chapter 1 about the purpose of management (viz., improving achievement and performance), and in Chapter 2 about the nature of management decisions. The management decisions concerned with evaluation are those that deal with the health team's:

- effectiveness, or achievement of results;
- efficiency in the performance of its activities; and
- economic use of resources.

Since evaluation is concerned primarily with effectiveness, or the achievement of results, the following questions are asked first:

- Are the results as intended?
- Are the results of value?

When the answers to both are yes, the decision would most likely be to carry on as planned. If they are negative to one or the other, the ensuing decision will usually be to re-plan the objectives or the activities or both.

Shifting now to its concern with performance, evaluation asks the following questions:

- Are the results as good as they could be ?
- If not, why not?

When the results are as good as they could be the decision would usually be "no change". If they are less than expected, the likely decision would be to change the design of activities, the deployment of staff or use of resources so as to avoid obstacles and take advantage of opportunities. Normally such decisions would be made in the course of implementation, on the basis of interim or periodic evaluation, rather than at the end of a programme.

Finally, with regard to economy, evaluation would ask the following questions:

- Could the same results have been achieved more cheaply?
- If so, by which substitution of resources?

The ensuring decision would be to use resources more economically. This kind of decision, a typical 'control' decision, might be taken in preparing yearly operating budgets.

Before proceeding to a review of management functions in evaluation it is worth while to emphasize that evaluation can be undertaken at different times and in various ways. These possibilities are discussed at some length in Part IV.

To identify the main functions of management in evaluation, this chapter outlines a general approach and discusses some difficulties of application.

The general approach of evaluation is as follows:

- MEASUREMENT OF OBSERVED ACHIEVEMENT(S)
- COMPARISON WITH PREVIOUSLY STATED NORMS[a], STANDARDS[b], OR INTENDED RESULTS
- JUDGEMENT OF THE EXTENT TO WHICH CERTAIN VALUES ARE SATISFIED
- DECISION.

For instance:

> *A health team has achieved, according to its records, an 80% coverage of pregnant women with post-partum visits in its health area. The target it had set for itself was 75% coverage. Achievement appears therefore more than satisfactory. By looking at the distribution of these women, however, it appears that none belong to three distant villages. This does not satisfy the community's demand for 'equal access to services'. A decision is required.*

This example illustrates an important difficulty in evaluating health work. Evaluation primarily is concerned with effectiveness. In the example, is effectiveness best measured in terms of coverage, of equal access to services, or of both? Is the health team more successful if it exceeds its target coverage by concentrating its effort on nearby villages, than if it provides services to all the villages equally at the price of less coverage? Effectiveness is not a matter of simple success or failure.

---

[a] Norm: standard quantity to be produced or amount of work to be done.

[b] Standard: measure by which accuracy or quality is judged.

In practice, a health team tries to meet the many and varied needs of the community and to satisfy its more pressing demands; it also has to pay attention to problems that have national priority; it has set itself operational targets in a variety of fields (like nutrition, water supply, communicable diseases, family health, etc.) and it has given itself time-frames to achieve those. Effectiveness is about ALL these, and evaluation must in some way provide as full a picture of effectiveness as possible.

It is therefore difficult to apply the evaluation concept. One way to resolve this difficulty is to select carefully the means of measuring effectiveness. To choose useful INDICATORS of effectiveness, the following questions must be asked:

> WILL ANY PLANNING OR IMPLEMENTATION DECISION BE AFFECTED BY THE EVALUATION FINDINGS? If yes,
>
> HOW WILL THAT EVALUATION FINDINGS BE USED IN MAKING THAT DECISION?
>
> HOW MUCH WILL THE DECISION IMPROVE EFFECTIVENESS?

For instance:

> *Following the evaluation presented in the above example the following implementation decisions must be made: a) Whether the team ought to provide services to the three distant villages? If so, when? and what proportion of the manpower and resources should be reassigned for the purpose? b) Where could services be compressed and resources saved for the uncovered villages? Information on coverage of women in each village will show this. c) Whether, say, 10% of manpower time, and other resources should be transferred to the three distant villages. This probably would not reduce coverage to less than 75% in any previously covered villages, but it could raise coverage from 0 to 50% in the three distant ones, a valuable improvement of effectiveness.*

From this example it can be concluded that 'coverage' and 'distribution' are suitable indicators of effectiveness since they point to necessary implementation decisions, they contribute to making such decisions, and they support the decisions.

One function of management in evaluation is to SELECT INDICATORS of effectiveness that are useful for decision-making.

But there are other difficulties with evaluation. For instance:

> *A health team evaluates its effectiveness in providing clean water to 10 villages where at the beginning the ratio of pumps to families was 1 to 45. Its target was one pump to every 20 families. At the mid-point of the plan period the ratio is only one pump*

to 40 families. This might be called a failure, as little progress was achieved towards the target.

The ratio (pump: families) is not a sufficient indicator of effectiveness; it tells nothing about the possible causes of failure. To learn from experience (which is one reason for attempting evaluation) something more must be done, viz.,

ASSESS WHAT FACTORS HAVE PREVENTED SUCCESSFUL IMPLEMENTATION.

This implies looking at the entire chain of events that normally would have resulted in success, and discovering what were the obstacles and limitations that prevented success as well as the positive factors that might have led to success but were not strong enough to overcome the obstacles. For instance:

Such ASSESSMENT might include
- *estimating popular demand for water*
- *examining community acceptance of the type of pump proposed*
- *finding out if the community can pay for the maintenance of the water supply system*
- *checking if all the required parts are in stock*
- *testing the drilling rig*
- *appraising the technical ability of those who prepared the detailed plans for the project*
- *examining the financial position of the rural water scheme*

etc.

ASSESSMENT in this respect is therefore the identification and analysis of a variety of factors that might explain the evaluation findings. In other words it is continuing the evaluation, but in depth. Whereas evaluation deals with effectiveness, often assessment will reveal inefficiency, or an uneconomical use of scarce resources as a cause of failure. ASSESSMENT is the second function of management in evaluation.

Furthermore, the evaluation function can turn towards management itself, asking the questions: how efficient is the management? It is like looking at oneself in a mirror. This self-evaluation of management is usually referred to as MANAGEMENT AUDIT, which is the third function in evaluation.

Obviously management needs information to be able to discuss seriously points such as those raised in the example above. In the chapter on implementation, reference was made to the monitoring function of management, as the mechanism for getting the right kind of information, when and where it is needed, for evaluation purposes as well as for more immediate control purposes. In this sense, monitoring can be regarded as a subsidiary function of management in evaluation.

Finally, as stated in Chapter 1, FEEDBACK is necessary for learning from experience. When a health team undertakes an evaluation, with all members contributing the feedback is immediate, insofar as every staff member learns from the discussion. But evaluation findings and their interpretation must also be communicated to decision-makers at other levels, especially if their participation in improving the situation is expected, Feedback may be made available to users in the community, to their representatives and leaders, and also to higher levels of the administration.

A final note about evaluation and the principle of management by exception: Evaluation, particularly the assessment of the causes of under-achievement, is one way to ensure that management focuses its attention on what matters most; it helps in making BIG decisions FIRST.

SUMMARY

EVALUATION IS FINDING OUT THE VALUE OF WHAT HAS BEEN ACHIEVED. IT IS CONCERNED WITH EFFECTIVENESS. A GOOD EFFECTIVENESS INDICATOR HELPS IN MAKING PLANNING AND IMPLEMENTATION DECISIONS.
ASSESSMENT IS FINDING OUT THE CAUSES OF SUCCESS OR FAILURE. IT DEALS PRIMARILY WITH EFFICIENCY.
EVALUATION DEPENDS ON MONITORING OF INFORMATION.
MANAGEMENT AUDIT IS EVALUATION OF MANAGEMENT BY ITSELF. FEEDBACK IS NECESSARY IF LEARNING FROM EXPERIENCE IS TO TAKE PLACE.

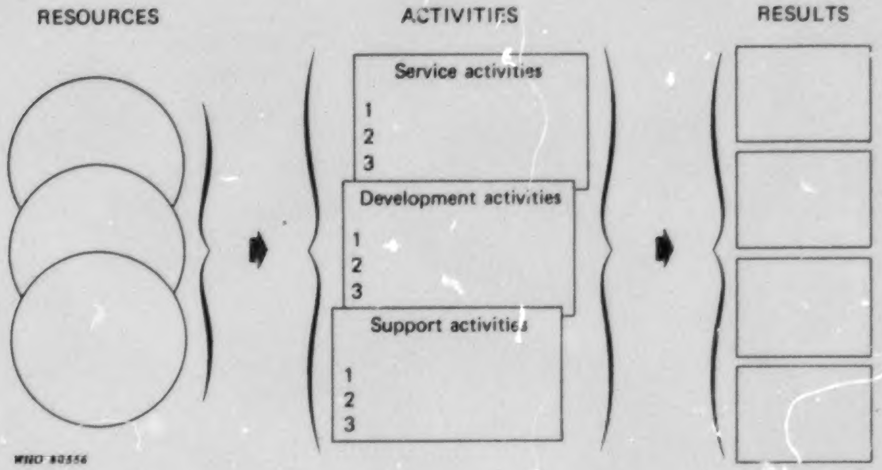
Exercises

PART I

Chapter 1

Definitions and principles

EXERCISE A.1 After reading Chapter 1 study the diagram below. Fill in the headings you think describe best the activities of a (your) health team, then list the main resources it uses, and name some of the results it achieves (or should achieve).


RESOURCES
ACTIVITIES
RESULTS
Service activities
1
2
3
Development activities
1
2
3
Support activities
1
2
3
WHO 80556

EXERCISE A.2 Of the resources, activities and results listed in the diagram above, which do you think should be monitored (m), controlled (c), evaluated (e)

RESOURCES should be ...

ACTIVITIES should be ...

RESULTS should be ...

EXERCISE A.3 Fill in the blanks in the following statement:

"MANAGEMENT AIMS AT IMPROVING THE ACHIEVEMENTS AND PERFORMANCE OF A HEALTH TEAM BY: RAISING THE E........ USE OF RESOURCES, BY E........... DEPLOYING STAFF AND BY ENSURING THE HIGHEST POSSIBLE E............ OF RESULTS.

EXERCISE A.4 Of the management principles you know, which one do you think helps to improve team performance most? Explain your viewpoint in a few words.

Chapter 2

The main functions of management

EXERCISE B.1 Your health team maintains a small stock of supplies. Name some management decisions which are needed in maintaining a stock of supplies.

...

...

...

...

EXERCISE B.2 Focus now on the decisions concerning the replenishment of stocks. Write one decision rule (if ..., then ...) which can be used by the team for replenishing its stock.

...

...

...

...

EXERCISE B.3 List the information that will be needed for making replenishment decisions based on the rule you have proposed in Exercise B.2.

...

...

...

...

EXERCISE B.4 Propose two possible decision-makers from among your team's staff to be responsible for replenishment decisions, and show advantages and disadvantages of each proposal.

Responsible D.M.	Advantages	Disadvantages
a) ...	...	...
	...	...
b) ...	...	...
	...	...

Chapter 3

The planning function

EXERCISE C.1 Choose a health problem with which you are very familiar, and describe it briefly.

...

...

...

...

EXERCISE C.2 Describe in one sentence what your team's objectives might be in respect of the health problem you choose in Exercise C.1.

...

...

...

...

Now check if you said: who, where and when? (underline these words where they appear).

EXERCISE C.3 Describe in one sentence what your team's activities should be for achieving your objectives in Exercise C.2.

...

...

...

Now check if you said: what, how much, how? (underline).

If not, try to think why not?

EXERCISE C.4 List five planning decisions about the resources needed for the activities described in Exercise C.3.

1.
2.
3.
4.
5.

If you cannot reach 5, try to think why not.

Chapter 4

The implementation function

EXERCISE D.1 Fill in the blanks in the sentence below:

"In a primary health care service, before deciding to go ahead with some new activity I should check

1) that preceding activities have been C...........
2) that the M....... needed is available
3) that the F..... have been allocated
4) that I have the necessary I......... for making a sound decision."

If condition 1) is not fulfilled, what choices have you?

...

...

...

...

EXERCISE D.2 Listed below are a few implementation decisions about manpower. Show by a (O) if you think these decisions concern organization; by a (D) if you think they deal with directing; by an (S) if you think they are supervisory.

- assign tasks to staff
- fix a reporting date
- establish coordinative mechanism
- provide in-service training
- designate activity leader
- provide incentives
- specify work norms.

If any one of these decisions seems to you to relate to more than one function, record it; but be sure to indicate to which function it is mainly related (e.g., by underlining).

EXERCISE D.3 You are a 'decision-maker'. Think of one simple implementation decision, and record it below under "My decision". List the information you need for making that specific decision, under "What information?". Then describe the processes that make this information available to you, using very few words. (A hint: you may use the standard questions - who? where? when? etc. - to make sure you do not miss some important aspect of the process.)

My decision:

What information?:

Processes:

Chapter 5

The evaluation function

EXERCISE E.1 Almost every word in the left column is best paired with one word of the right column, to form an expression used in evaluation. Try to match them, and group them into expressions dealing with effectiveness, efficiency and economy.

Appraise	Abilities	Expressions dealing with effectiveness
Assess	Accounts	-
Audit	Demand	-
Check	Discipline	-
Estimate	Management	Expressions dealing with efficiency
Evaluate	Needs	-
Inspect	Norms	-
Order	Performance	-
Survey	Results	-
Test	Staff	Expressions dealing with economy
Verify	Stocks	-

EXERCISE E.2 After a meeting of the village council, devoted to health matters, the Chief informs your health team leader of the following needs, demands and priorities of the village community. Suggest suitable indicators of effectiveness to evaluate the current and future achievements of the team.

priority	need	demand	proposed indicators
1	help against fevers	a village pharmacist with free basic drugs	
2	better child-nutrition	One monthly baby-clinic with cheap weaning food	
3	improved sanitation	1 pump in market 1 pump in school	

NOTES

Part II

Working with People
or
The Health-team Approach

"People are the most important resource of any country,..."
(Primary Health Care. Report of the International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978, page 61)

INTRODUCTION

People may be cooks, teachers, engineers, nurses or medical assistants, but at some time during their work they are also managers.

The quality of what is produced - a tasty meal, an interesting lesson, a safe machine, or a successful health programme - depends on a person or a group of persons. In other words, only people make things happen. There may be money, equipment, materials and techniques, but none of these can perform a task, either simple or complex, without a person or group of people to set action in motion.

A health worker with management responsibilities deals with people and things. Both are important, but since 80% of health budgets is spent on salaries and staff benefits, and people matter more than things, the effective supervisor will give much more attention to the people with whom he works than to the things they have to handle.

Managing people is more complex than managing things. Things cannot think or answer back; above all they cannot feel. Things are insensitive. But, to work harmoniously with people demands understanding and skill. People like to feel useful and appreciated and may become discouraged when they are ignored or unjustly criticized. When people are helped and their work problems are understood, the quality of work improves.

Efficient ways of working and regular pay are not enough to keep people satisfied at work. As well, the work must be interesting and stimulating; working conditions, the environment, relations among team members and between the community and the health team, are very important factors in determining work satisfaction. The health worker-in-charge has an important responsibility to be sympathetic and helpful to other health workers and to try to promote a relaxed and happy working atmosphere.

The following chapters discuss different aspects of working with people as a colleague, a leader or a member of the community. Better health care depends largely on efficient management, i.e., making the best use of available resources. But management depends on people and the basis of good management is harmonious human relations.

The success of a team's work depends to a great extent on how well its members work together and with the people they serve. Good management can help a team to work together harmoniously and efficiently. Five ways of doing so are described in the chapters that follow:

- by setting and sharing objectives (Chapter 2.1);
- by encouraging good personal relations (Chapters 2.4 and 4.4);
- by distributing tasks (Chapter 3);
- by coordinating the activities of the team (Chapter 3.2); and
- by applying sound organizational principles (Chapter 3.2).

Chapter 1: What is a health team ?

LEARNING OBJECTIVES

After studying this chapter the health worker should know how to:

- create a work team, using principles of interpersonal relations
- establish relations with the community
- use organizational principles to manage a health team.

CHAPTER 1

WHAT IS A HEALTH TEAM?

A health team may be defined as a group of people working together to give health care to individuals and families in a community.

The members of a health team include all those working together. For example, the supporting staff - a clerk, a driver, a cleaner - are all part of the team. It is important that their work and contributions be recognized as well as that of the technical staff - the medical assistants, nurses and community workers.

There are many different kinds of health teams depending on the type of health work the group undertakes. Sometimes there are specialist health teams, e.g., a mobile team that travels from place to place dealing with one disease (such as leprosy or tuberculosis), or a surgical team in a hospital. In this manual the health team refers mainly to a group of health workers who serve a small community and give essential health care.

Usually a health team has a base. The team may work together in one building such as a health centre or clinic where equipment is kept and some clinics are held. From this base the health workers visit the community to discuss health problems, do school health work, hold temporary clinics, or follow up patients in their homes. Or the health workers may work as a mobile team in the community; or individuals may work in separate villages but within the framework of an area programme. A health team may include also a village health worker chosen by the village people, whose base is in the village itself.

The principles of interdependence and teamwork are the same in all cases but the applications will be different.

1.1 THE HEALTH TEAM, PRIMARY HEALTH CARE AND COMMUNITY PARTICIPATION

The health team exists for the community. The community has health needs and it is the function of the health team to respond to those needs.

No one person can acquire all the necessary skills, or have enough time, to do everything that must be done to satisfy the health needs of even a small community. Therefore, people have to work in teams to get the work done.

The aim of a community health team, working from a base (called a health centre or a clinic) must be to help communities to attain health by means of essential or primary health care.

Primary health care is essential health care made universally available to individuals and families. It includes those services which promote health such as keeping a clean environment, good water supplies, care of mothers during pregnancy and childbirth, nutrition of children, immunization, and early treatment of disease.

To achieve its aim a health team must be able to promote community participation, i.e., to help people to rely as much as possible on their own efforts and resources for their health needs. One important way that a community takes responsibility for its health is to appoint its own primary health care workers, and it then becomes a duty of the health team from the health centre to train and support these workers.

The members of the team should work closely also with workers from other sectors that promote community welfare, such as teachers, agriculture extension workers and community development workers, and with religious leaders.

To work well as a team, and to be able to promote community action and support village-level primary health care workers, the leader and other members of the health-centre team need the skills of leadership and organization. These skills can be learned. People can learn to work well and work together as a group. But, unless the health team takes part in the community's activities and works with the people, the skills of leadership and organization are of little use.

A health team must:

- understand and communicate with the community;
- encourage community participation in identifying problems and seeking solutions; and
- work in the community, i.e., in health centres, community meeting places and people's homes.

To establish relations with the community a health team does not tell the community what to do or give orders to people; rather it works with people. To establish good relations with the community a health worker or health team follows three steps:

(a) listen, learn and understand;

(b) talk, discuss and decide; and

(c) encourage, organize and participate.

(a) Listen, learn and understand

Every community is different. Even in the same country, there are differences between each local community. To work with people and help them it is essential to understand their way of life.

There are many details to learn about the way people live, and this can be done only by living among them, listening and watching. It is not good to ask too many questions; this annoys people.

LISTEN AND OBSERVE

One may observe and learn about communities under the following headings:

work and living standards (community resources);

family life;

social and political structure;

population structure;

values, beliefs and customs; and

health attitudes.

Work and living standards: How do people get food? How do they earn money? Are they farm workers, fishermen, cattle-farmers, estate workers, factory workers? How do they spend free time? Do they work at night?

Who works? Is it the men or women, or both? Do children work? How many of the children attend school?

Is the community poor? Is it becoming richer? What are the living standards? Are there good markets, good roads? Is there a clean water supply? Is there electricity, a telephone service, a bus service?

How do familes live? What are the houses like? Do they have a system of sanitation? Are the houses infested?

Family life: What are the relations in the family? Who makes decisions? Is the family system an extended one? How many children? How are children fed and how are they taught?

Social and political structure: Who are the community leaders? How do they become leaders? Who makes the decisions? Is the political structure authoritarian (power from above) or democratic (the people are consulted)? (See Chapter 2, Section 2.4, on styles of supervision).

Where do people meet: in the market, at water-supply points, in clubs, at church, in their houses?

Population structure: Are there many old people? How many children are being born? Are there many women of childbearing age? Are there very few young adults because most have left the village to work in the towns?

Values, beliefs and customs: In every community there are sets of beliefs about life which come from tradition and religion. There are customs that regulate how people behave towards each other, e.g., giving respect to elders, demanding obedience from children. Customs also determine behaviour in marriage, childbirth and at death.

Values show what people think are most important. For example, some people place a very high value on clothes and personal appearance, some on dancing and social occasions, and others on polite forms and manners in social relations. Health workers need to understand very fully the beliefs, customs and values of the people.

Health attitudes: What are the beliefs about the causes of sickness? What treatments are used within the family? Are there herbal remedies? Are there traditional healers? What traditional methods are used? Are there special beliefs about childbirth, breastfeeding and weaning? Are there food taboos during pregnancy? What is the attitude to child-spacing or birth control?

(b) Talk, discuss and decide

The next step of the health worker is to lead the community towards identifying its health problems and putting them in priority order. Discussions can be both informal and formal. Informal discussions with families and people in the markets and shops will show what concerns people most. Informal discussions with political and religious leaders and with other government agencies will give further ideas. After many informal talks it should be possible to make a list of the main problems that concern the community.

At this stage, a formal meeting convened by a community leader could be held to try to decide which problems are the most important and what can be done about them. This could be difficult and might need several meetings before any clear decision is reached. In this way the people are encouraged to participate in solving their own health problems.

(c) Encourage, organize and participate

It is quite easy to talk about what is wrong. It is much more difficult to put things right. When the people have decided what the main health problems are, and agreed on their order of importance, a plan of action must be prepared. (See Part IV).

It is in preparing a plan of action that the health worker can help most. From his knowledge and training, the causes of some problems and how to solve them can be explained to the people. For example, if the people are concerned about sickness among children, the health worker can explain various ways of preventing it, such as by protecting water sources, immunizing the children, and improving weaning foods.

The health worker or health team works with the community to put the plan into action, to make changes that will lead to improvement over a period of time.

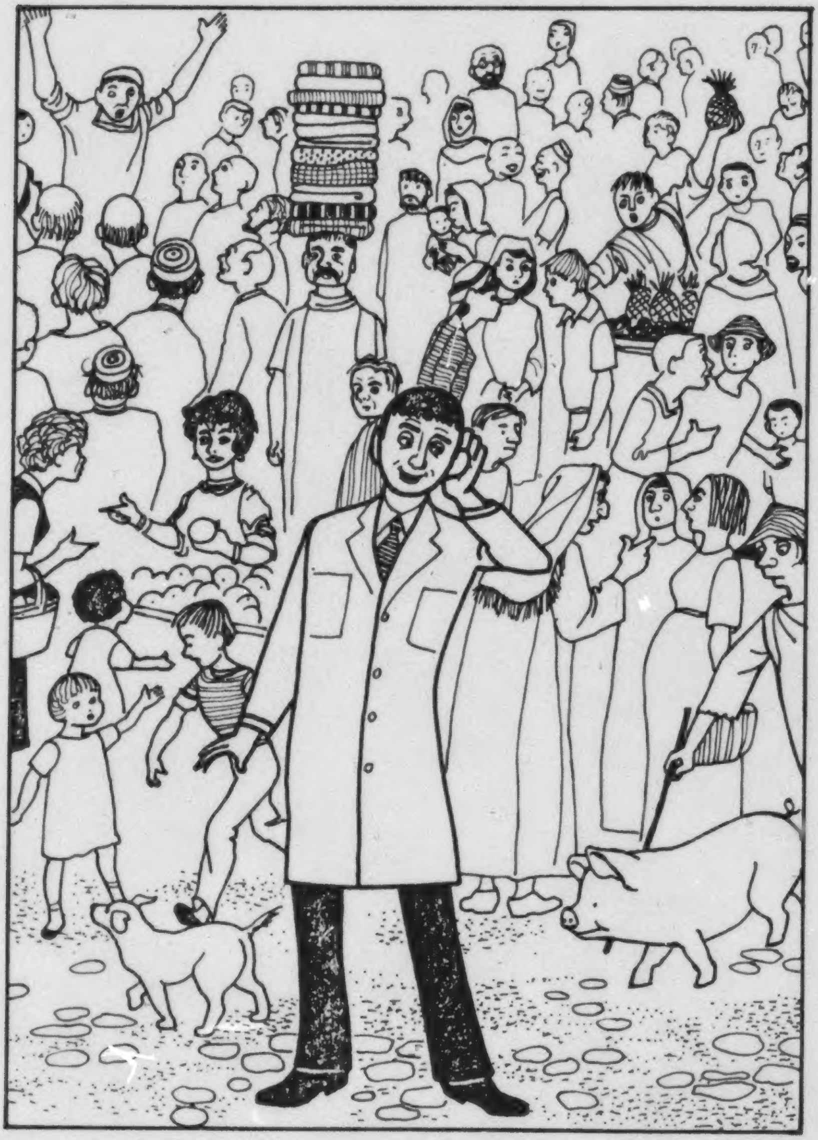
SUMMARY:

- THE PURPOSE OF A HEALTH TEAM IS TO WORK WITH THE COMMUNITY

- WORKING WITH THE COMMUNITY NEEDS DEEP UNDERSTANDING

- WORKING WITH THE COMMUNITY MEANS:

  - OBSERVING, LISTENING AND LEARNING;
  - DISCUSSING AND DECIDING; AND
  - ORGANIZING AND PARTICIPATING.



Listening to the community

Chapter 2: How to lead a health team

LEARNING OBJECTIVES

After studying this chapter and performing the exercises on page 126, the health worker should be able to:

- ensure that objectives are agreed upon by as many of the people concerned as possible
- cooperate with a team in setting practical[a] and feasible[b] objectives and targets
- understand and apply those factors that motivate people to work
- reduce the effects of factors that cause dissatisfaction
- decide when, how and to whom to delegate authority and responsibility
- choose a style of supervision that suits the health team and the circumstances in which it works.

[a] practical : concerned with practice, useful in practice, (opposite to theoretical)

[b] feasible : practical (that can be done), possible,

CHAPTER 2

HOW TO LEAD A HEALTH TEAM

This chapter describes how a leader works with a team in setting and using objectives in community health work.

A WORK TEAM IS A GROUP OF PEOPLE WORKING TOGETHER TO ACHIEVE COMMON OBJECTIVES

2.1 SETTING AND SHARING OBJECTIVES

People work well together when they agree with one another. To fulfil the objectives of an organization those who work for the organization should know what its objectives are. People who do not know what those objectives are may waste much of their efforts on activities that do not bring the objectives any nearer to achievement. People who are opposed to the objectives may obstruct the work of the organization. It is very difficult, if not impossible, for real progress to be made in health care without the active cooperation of everyone concerned.

The health worker in charge of a programme and a health team deals first with people and then with things. People do not give of their best when they are dictated to. One of the best ways - perhaps the only way - to ensure that people are agreed on objectives, and that their motivation is applied to achieving them, is to see that they take part in setting the objectives.

Motivation is an inner impulse that determines what a person does and the energy and enthusiasm with which he does it (See Section 2.2 below). It is the basis upon which personal decisions are made. People like to make important decisions for themselves. They are much more ready to work towards objectives they have themselves helped to set than towards objectives that are set by others.

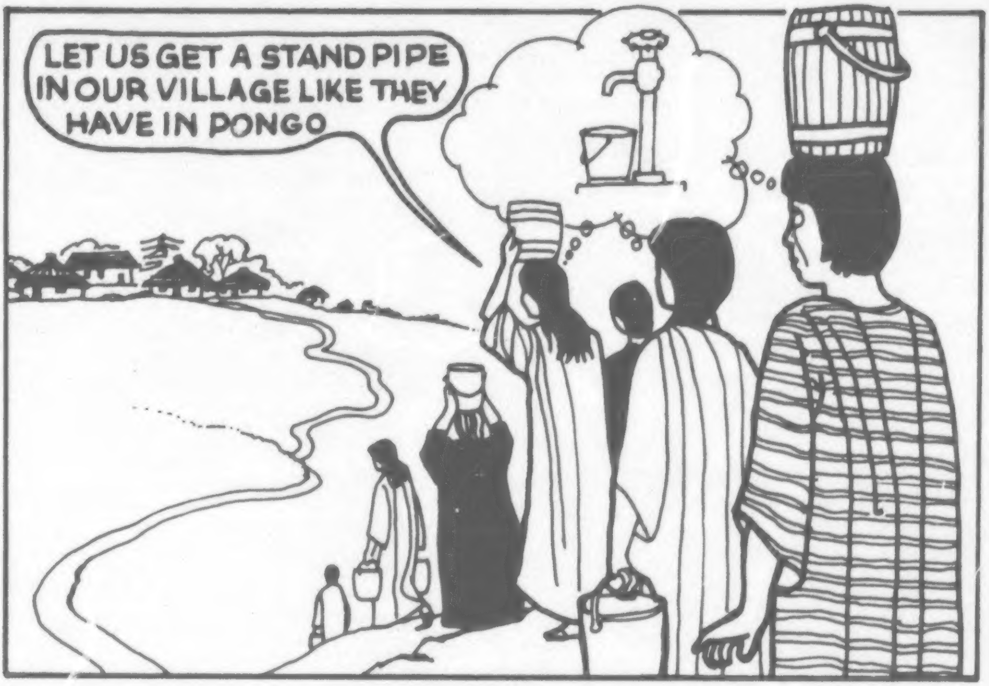
When local health objectives are being set, various groups of people should be consulted. They include:

(a) People in the community: interested people from other sectors, e.g., schoolteachers, traditional healers, agricultural extension workers.

(b) Patients.

(c) Health workers.

(d) The ministry of health (to make sure that local objectives are in agreement with national objectives).


LET US GET A STAND PIPE IN OUR VILLAGE LIKE THEY HAVE IN PONGO

Setting objectives

(a) People in the community

It is often very difficult to find out what a community's objectives are, or to what extent a community feels a need for an improved state of health or some other social or environmental improvement that would bring about a better quality of life. In any community most people set their local health objectives. However the health staff should not be allowed to do so alone. Some people will try to exert undue influence to further their own interests. The health staff should work to counterbalance this influence by encouraging the silent majority to contribute to objective-setting. It is said in Part IV that a situation does not become a problem until it is seen to be a problem. Health workers will be aware of many health problems in the communities they serve that the local people are not aware of. Their health education function will be to help the people become aware of these problems. Until the people are aware of them, the health workers will not be able to support them in their efforts to solve these problems.

(b) Patients

Patients demand services. When they have understood their problems and have come to the health worker for a solution they have a right to be heard. The health needs of a community are often expressed first through the people who are sick. The treatment of sickness may not be the most serious need as the health team sees it, but, to gain the cooperation of the community, the health team must first deal with their expressed needs.

(c) The work team

In Part IV it is stated that one of the purposes of setting objectives is to be able to assess results, and that one of the characteristics of objectives is that they should be observable when they have been achieved. Clearly stated objectives encourage health workers to perform their tasks and help them to review and analyse their routine activities. This is why it is important to set objectives that are feasible and to have the agreement of the health team and the community before making final decisions.

(d) The ministry of health

National objectives are set by the ministry and then modified and adjusted according to the situation at different levels of the health system. In principle, the ministry of health represents the community as a whole, and sets general health policy. It is the responsibility of the ministry to evaluate the work of its health units and to coordinate their work with other government departments, e.g., Agriculture, Education, Social Welfare.

SUMMARY

A GOOD LEADER SETS OBJECTIVES IN COOPERATION WITH HIS WORK TEAM.

A LEADER HELPS THE COMMUNITY, THROUGH EDUCATION AND DISCUSSION, TO CHOOSE OBJECTIVES RELATED TO REAL HEALTH NEEDS.

OBJECTIVES MUST BE FEASIBLE AND AGREED UPON BY ALL WHO WORK TO ACHIEVE THEM.

LOCAL OBJECTIVES MUST REFLECT THE POLICY OF THE MINISTRY OF HEALTH AND AGREE WITH ITS NATIONAL OBJECTIVES.

OBJECTIVES ARE IMPORTANT MOTIVATORS.

2.2 MOTIVATING

Motivation is an inner impulse that induces a person to act in a certain way. It is a series of internal drives within a person at different levels:

Level 1. To obtain the necessities for life itself - food, shelter, clothing, rest and safety.

Level 2. To satisfy social needs such as the need for companionship, love, and a position of respect.

Level 3. To develop a measure of personal satisfaction. People need to feel comfortable with themselves and with what they make of their lives and of their talents and abilities.

How to use personal motivation to achieve work objectives

It is important for a team leader to understand what encourages people to apply their ability and energy to work, and what are those things that make people dissatisfied at work.

These two groups of factors may be called motivators and dissatisfiers, respectively.

The six main motivators in work are:

(a) Achievement. Most people like to do things well. They like to succeed. Satisfaction in success and in getting things done well comes largely from achieving what people expect to be able to achieve, and what they aim at achieving. Thus achievement is a very important matter for an individual.

A good team leader helps the team members to achieve, by giving them clear instructions, suitable training, and the facilities and supplies they need for their work. It happens often that people fail to achieve what they feel they could have achieved, and they are ready to blame this failure on others. The wise leader is willing to accept his share of the blame, but does his best to obtain for his health workers and other people with whom he works whatever they need to enable them to achieve.

HELP PEOPLE TO ACHIEVE WORK OBJECTIVES

(b) Recognition. Very few people are satisfied with simply knowing in their own minds that they have been successful. They like other people to know of their success also. We can be sure that others know of our success only when they respond to our achievements, i.e., acknowledge that we have been successful. It should not be difficult to praise good work and even to publicize it. However, many leaders find it very difficult to do so. Perhaps they fear that if they recognize good work on the part of their subordinates their own achievements will be belittled. Lack of recognition can be very discouraging; the leader should be willing to praise others when praise is due.

GIVE PRAISE WHEN DUE

(c) The work itself. People like to do work that is constructive, that in their opinion is worthwhile and helpful to other people. The staff of an organization like to do work that they can see as contributing to the objectives of the organization as a whole.

The importance of curative medical work is self-evident; this is one reason why it is so attractive. Prevention and health education are not so obviously important; and health workers can find it hard to believe that dull jobs like accurate record-keeping and inventory control have any importance.

The good leader will try to keep dull repetitive tasks to a minimum, and take every opportunity to assure the team members of the importance of their work.

EXPLAIN THE VALUE OF WORK

(d) Responsibility. To have responsibility is to be able to take the consequences for a decision or an action whether they are good or bad. Most people welcome responsibility; some people fear it. Most people like to make decisions about their own lives and to accept responsibility for doing so.

A leader can easily destroy or, at least, reduce staff members' sense of responsibility by making decisions for them. It is especially important not to do this when managing isolated clinics where the staff have to work mostly without direct supervision. Use the time you can spend in such a clinic to increase the staff's sense of responsibility for work, not to diminish it by small criticisms.

HELP OTHERS TO TAKE RESPONSIBILITY

(e) Advancement. Advancement is a form of recognition. Recognition without reward is not very convincing. People prefer recognition that comes in a tangible form such as an increase of salary or more responsibility, with freedom to use their own initiative, which leads to job satisfaction.

People's satisfaction often depends as much on what they expect to get as on what they get. When the team leader or supervisor acknowledges good work, he does not make promises of advancement that he will not be able to keep. Instead, people should be encouraged to increase their knowledge and skills so that they are ready for promotion.

HELP OTHERS TO TRAIN FOR PROMOTION

(f) Self-improvement. People like to become mature, to develop as people. Many people make great sacrifices to improve themselves or to offer such opportunities to other members of their families.

Many people want opportunities to discover, develop, master, and use their own abilities to the fullest extent in their work and private lives. Since health workers deal with people there are endless opportunities for self-improvement at work. Team leaders can help their health workers to take these opportunities by providing suitable learning material, by challenging them with questions at work, by helping them to set up research projects (which can be very simple), and by the quality of their supervision. If people are given such opportunities to develop they are likely to bring energy and enthusiasm to their work.

GIVE OPPORTUNITIES FOR DEVELOPMENT

Objectives and Motivation

Objectives are important motivators. Consider the effort a young person puts into studying when he is clear that he wants to go to college. He will work day and night to achieve his objective. But if the objective is only to get through school with as little trouble as possible he will do as little work as the teachers allow.

Or, think of the difference between a group of young men running together simply to enjoy themselves and group of athletes who set out to win a race. The 'tools' used are the same, but the objectives and the results for the two groups are completely different.

Things that make people unhappy with their work are dissatisfiers or demotivating factors.

It is easier to be critical than creative. It is easier to recognize what makes people dissatisfied at work than what satisfies them. It is important to remove causes of dissatisfaction, but this may not be enough to take advantage of people's motivations; it may be only the first step.

Six common causes of dissatisfaction are:

(a) Inefficient administration: People like to work for an administration that is both efficient and just. Waste of time and of resources is exasperating. Even if people do not complain, they do not like to be kept waiting. To keep a person waiting is a sign of disrespect: it is the opposite of recognition. Administrators who fail to pay salaries on time, or to send transport when it has been arranged, or to distribute supplies, cause serious dissatisfaction and discourage their staff.

(b) Incompetent supervision: People expect their supervisors to be technically competent. They must know the details of the work they are supervising. If the midwives' supervisor cannot help with a difficult diagnosis she will lose the midwife's respect.

Reaching an objective!

(c) Poor interpersonal relations: People should be treated fairly. Supervisors who have favourites, or who are dishonest in reporting on the work of the staff, are disliked and the work suffers. People like to be consulted about their work. "He never asks my opinion", "She never consults me", "He never tells me anything" are complaints that indicate poor personal relations.

(d) Personal qualities of the leader: People respond much better to example than to exhortation. "Do as I say, not as I do" is a poor method of leading. The leader has two forms of authority: that of his position and that of his person. If he does not have the personal authority that comes from integrity, fairness and a thorough understanding of his job, the authority of position will not impress those whom he leads.

(e) Inadequate pay: The absolute level of salary is not as important as its relative level. A salary is satisfactory when the worker gets what he expects, what others doing the same sort of work are getting, and what is generally regarded as being fair.

Many people estimate their own value by the salary they receive and estimate the value of their work by what they are paid for it. A poor salary has a negative effect. However, a good salary may only have a short-term positive effect. Increases in salary often result in better output and quality of work, but only for a short time.

(f) Bad working conditions: Health staff complain more about poor administration than about their working conditions.

SUMMARY

A LEADER CAN PROMOTE GOOD WORK BY USING MOTIVATORS AND REMOVING DISSATISFIERS. THE SIX MAIN MOTIVATORS ARE: ACHIEVEMENT, RECOGNITION, THE WORK ITSELF, RESPONSIBILITY, ADVANCEMENT, AND SELF-IMPROVEMENT. SIX COMMON DISSATISFIERS (OR DEMOTIVATORS) ARE: INEFFICIENT ADMINISTRATION, INCOMPETENT SUPERVISION, POOR INTERPERSONAL RELATIONS, PERSONAL QUALITIES OF THE LEADER, INADEQUATE PAY, AND BAD WORKING CONDITIONS.

2.3 DELEGATING AUTHORITY AND RESPONSIBILITY

The leader of a team is responsible for the work the team has undertaken. The leader must make sure that the team has the equipment needed for its work and that team members are properly trained and able to do the work. The leader is responsible for the team's failures and successes. At the same time, each health worker is responsible for the particular tasks of his special job.

People who can make decisions and see that they are carried out have authority: a health worker who makes decisions about how or where others should work has authority.

Authority and responsibility may go together, but they are not the same. People use authority to get the work done for which they are responsible.

One way of using authority is to delegate it. To delegate means to give another person some of one's authority or, in other words, to give another person the power to make decisions.

Delegation has certain advantages:

(a) Delegating some decison-making saves time for other duties;

(b) When work is spread over a large area, as in rural health work, the health workers on the spot must be able to make decisions according to circumstances;

(c) Delegation of responsibility saves long delays that occur when awaiting decisions from a distance or from a central office;

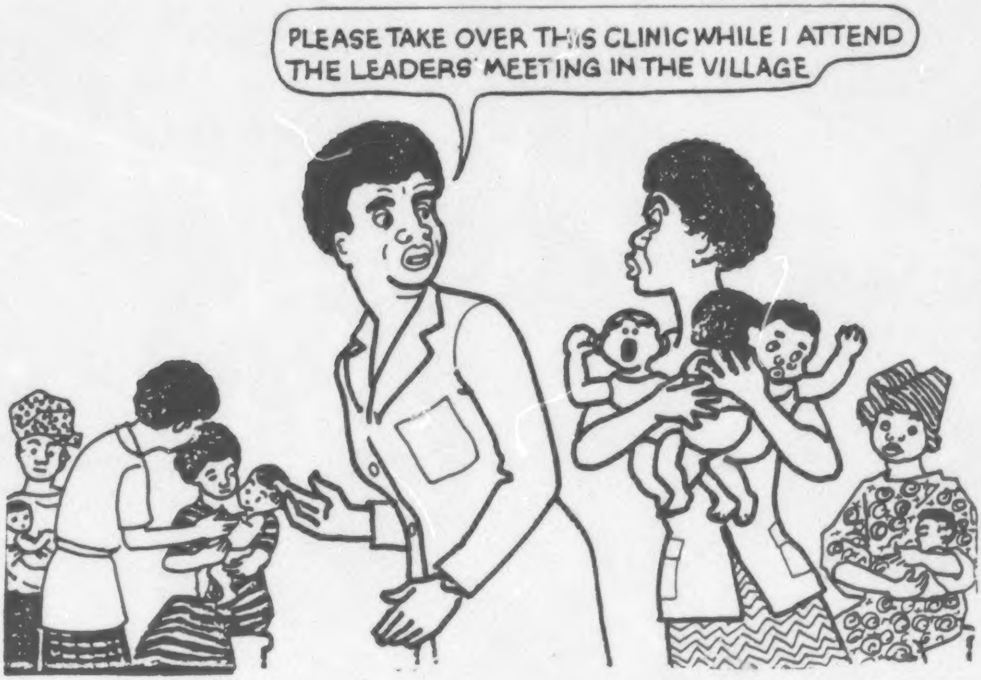
(d) Health workers who are allowed to make decisions enjoy their work more and become more knowledgeable and skilful;

and disadvantages:

(a) If wrong decisions are made, the work may not be done or it may be done less well;

(b) If delegation is not done properly, a leader may pass all his work on to his team and do little himself;

(c) A leader may delegate decisions to persons with insufficient experience.


PLEASE TAKE OVER THIS CLINIC WHILE I ATTEND THE LEADERS' MEETING IN THE VILLAGE

Delegate responsibility properly and for a good reason, and do not cause a subordinate to become overloaded.

Deciding what to delegate and to whom

In deciding what to delegate and to whom, a leader can use the following table, listing his present tasks in the left-hand column.

	Present tasks	Skills used	Health worker who can do this for me NOW	Health worker who could be trained to do this for me
1.	Separate weekly meetings with village health workers in three villages.	Supervisory Educational Consultative	Medical Assistant and Auxiliary sanitary worker in turn.	
2.				
3.				
4.				

Rules for delegating authority and responsibility

1. Be clear about exactly what is delegated.
2. Select the right person and make sure he can do the work.
3. Explain to others that you have delegated work and to whom.
4. Do not interfere unless asked to, and be prepared for some mistakes.
5. Give support as needed and follow up the progress of work.

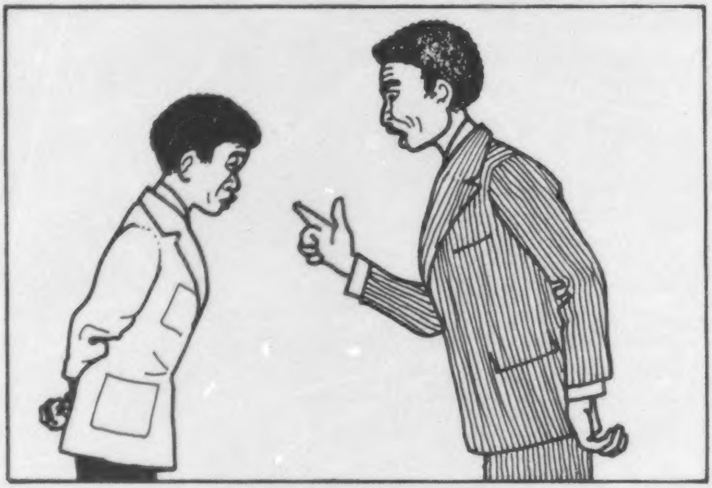
2.4 USING DIFFERENT STYLES OF SUPERVISION

There are three main styles of supervision: autocratic, anarchic and democratic.

You have probably met supervisors who were very dictatorial, who may have said, "Do what you are told, and don't ask questions!". They practise an autocratic style of supervision. The health workers have no choices to make and no influence on the type of work that is done. You may have met supervisors who in effect say, "I don't care what you do, as long as you keep out of my way!". This style of supervision can be called anarchic. The workers have complete freedom of choice and can do as they like. You may have been fortunate enough to have worked with a supervisor who said to you, "these are the results we have to achieve; this is the job to be done. Let us agree together how best to do it!" This supervisor practises in a democratic or consultative way.

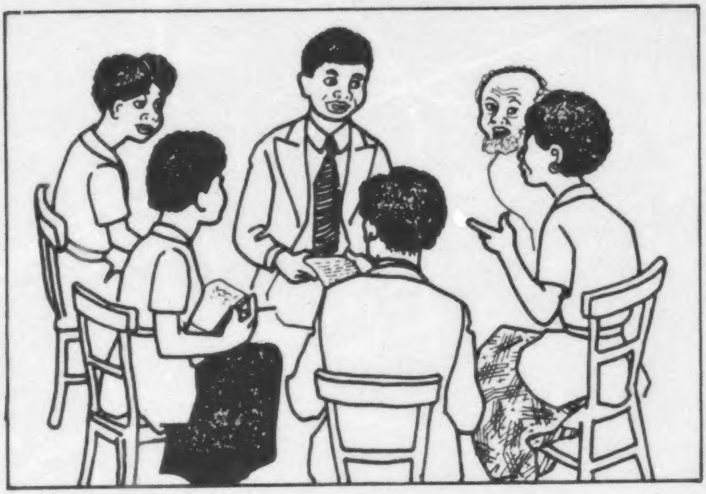
Autocratic - Do what I say! Anarchic - Do what you like!

Democratic - Let us agree on what we are to do.



"Do what I say!"

Autocratic supervision tends to humiliate people and make them irresponsible. It may dry up their initiative. If it is unjustly applied, and it often is, it makes people feel insecure. But remember that people need a framework of authority within which to exercise their freedom.



Consultation on work programme

On the whole, democratic supervision helps people to grow, to become responsible for their own work, and to take initiative. People like to be consulted. However, instructions must be carried out. Instructions must not become subject to discussion.

Deciding how to supervise

Most people prefer to work under a democratic leadership. However, this does not mean that the democratic style is always best. The choice of style of supervision depends on the kind of work to be done (job factors) and the kind of people to be supervised (personal factors).

Job factors include:

- the complexity of the job
- the difficulty of the job
- the need for quick decisions
- the need for consistent results, and
- the need for creative work (new ideas).

Personal factors include:

- the skill, reliability and experience of those who do the work, and
- their willingness to accept responsibility and to make decisions.

Note: Usually autocratic supervision succeeds only when subordinates can be closely supervised and controlled. In rural health work close supervision of the staff of an isolated health post is difficult and autocratic supervision is therefore not suitable normally.

What style should the supervisor adopt? It should not be one that only suits his personality and not the circumstances and needs of the job and the abilities of the workers. The good supervisor will adapt his style to different needs.

A consultative, i.e., democratic, style is most suitable:

- for work that demands creativity, e.g., research;
- with highly competent and experienced people;
- with people who are known to be reliable; and
- with people who are willing to take responsibility and make decisions.

In certain circumstances a supervisor must be authoritative, in the sense that his instructions cannot be subject to discussion. Such an authoritative style may be used:

- for tasks that demand coordination and consistency, such as dealing with large numbers of people;
- for tasks that are governed by strict policies or where immediate action is needed, such as dealing with an emergency or controlling an epidemic;
- with people who have little understanding of the goals of the organization that employs them;
- with people with limited skills or experience; and
- with people who are known to be unreliable.

Do not be afraid to vary your type of supervision to suit the circumstances.

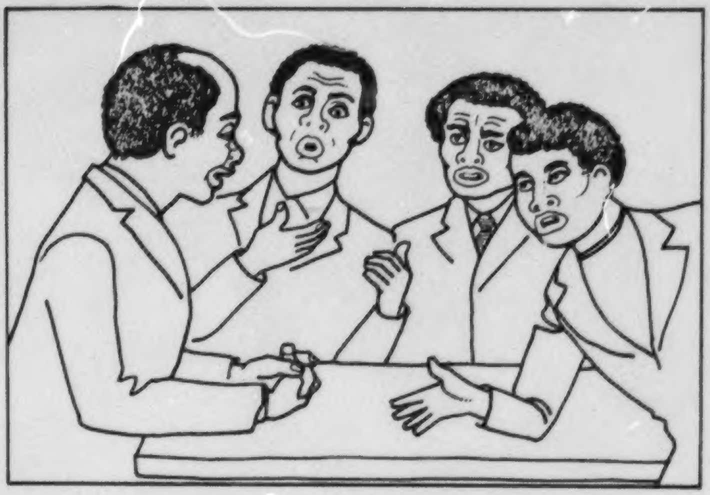
Example:

A case-study of supervision

George is the supervisor responsible for leprosy care in Beda District. Some time ago he attended a course in supervision and learned that, to obtain the full cooperation of his staff, he should consult with them and let them contribute to planning.

A few weeks ago George received written instructions from the regional leprosy officer that the dose of diamino-diptrenyl-sulfone (DDS) was to be changed to 100 mg daily for all adult patients, that treatment was to be continued throughout reactions, and that all new cases were to be given 100 mg of DDS daily from the day of diagnosis.

This was completely contrary to previous custom. For as long as George could remember, adults received 300 mg of DDS once a week, treatment was stopped during reactions and treatment began with low doses and built up gradually to the maximum dose of 300 mg a week. George called his dispensary attendants to a conference to discuss the new drug dosage with them.



Attendants arguing with George

When they assembled they began to question the wisdom of these new ideas. They said "We have always given patients 300 mg once a week; 100 mg a day is far too much. How do we know that if we give patients 100 mg a day they will take it? Patients cannot come to the dispensaries every day to collect their medicine. We are not even sure that they take 300 mg; some keep the tablets in their mouths and then spit them out and sell them. We have always stopped treatment during reactions. This is the only thing we can do for a reaction except to give aspirin. What are we going to do for reactions now? We have been told to build up the dose slowly because many patients are sensitive to DDS, and if we give a high dose to a sensitive patient he may die. Who is the chap that sent out these instructions". We have never seen him. What does he know about leprosy?" These were only some of the arguments they raised. There seemed to be no end to them.

George said that the instructions had come from the regional leprosy officer, who was an expert in his work. The dispensary attendants would not accept this and the arguments went on for most of the morning. George was unable to answer many of their questions and in his own mind, although he did not say so, he shared their feelings and could agree with much of what they said.

However, George had his instructions. Also, he had met the regional leprosy officer and knew him to be rather hot-tempered. Therefore to hold his position as supervisor he would have to put the new instructions into effect. So, after four hours of heated discussion, he closed the meeting by saying to the dispensary attendants, "Well, anyway, you must do what you are told. These are the instructions; carry them out!"

A discontented group of dispensary attendants dispersed with the new instructions. Later, in his supervisory visits, George found that several of the dispensary attendants continued to give DDS according to the former instructions. One gave

50 mg instead of 100 mg daily, on the grounds that 300 mg divided by 6 gives 50 mg; the patient was therefore getting the same amount as before. A few even continued to give the old treatment, but recorded it as the new treatment in their registers.

Which types of supervision did the superior use in this story?

Considering both the job factors and the personal factors in this story, was the type of supervision suitable?

Chapter 3: Organizing health team activities

LEARNING OBJECTIVES

After studying this chapter and performing the exercises on page 132, the health worker should know how to:

- design job descriptions and use them in managing a team
- coordinate activities of the team
- communicate effectively with the team and the community
- prepare and conduct meetings
- prepare for and conduct in-service training.

CHAPTER 3

ORGANIZING HEALTH TEAM ACTIVITIES

The distribution of tasks among the members of a health team is one of the most important functions of a manager. When work is distributed unfairly it causes dissatisfaction and sometimes quarrelling.

It is important to arrange work so that each individual is using his special skills and talents. By organization, work can be fairly distributed so that there is no 'overwork' or 'underwork' but all carry equal work-loads.

In health work tasks are very varied. A nurse, for example, may have to take temperatures, deliver babies, conduct clinics and write reports. This variation in tasks makes organization in health work a challenge to the team leader.

Job descriptions are one way to help to distribute tasks among the health team.

3.1 USING JOB DESCRIPTIONS

A job description explains to the worker:

- his authority, i.e., his right to make decisions.
- his responsibility, i.e., the degree to which he is expected to achieve something.

The purpose of a job description is to define exactly for a worker, fellow-workers and supervisors:

- what the worker is expected to do,
- what standard he is expected to reach,
- to whom he is responsible, and
- whose work he supervises.

The uses of detailed job descriptions

Job descriptions are a valuable tool for the organization of work.

A job description helps each health worker to know clearly and without doubt what his duties are and what he is expected to achieve.

Job descriptions help to prevent arguments between people about "who should do what". They help in the distribution of the equipment needed to do the work.

Job descriptions help to prevent both gaps and overlaps. It often happens that certain tasks are not done because nobody accepts responsibility for them. These gaps can be prevented by a clear job description for each team member. Sometimes two people may think each is responsible for the same job. This leads to confusion.

Job description can identify needs for training. Such a need is shown if a duty is included for which the individual has not been trained.

Job descriptions are useful as a basis for evaluating the team members' performance.

Note: Job descriptions should be interpreted flexibly, as guidelines, and not in a too strict literal way. Thus, team members should be ready to help with one another's work when necessary.

The content of a job description

A job description should be written under specific headings to make sure that all the necessary information is given.

Job title	This is the standard title for the person doing the work or job, e.g., Nurse/Midwife, grade 2
Date	The date is included because a job description is not final. People and roles change, and job descriptions should be reviewed and, if necessary, revised at least every year.
Job summary	This is a brief summary of the main responsibilities of the job.
Duties	This is the central and most important part of the job description. Each duty should be an identifiable entity, a recognizable part of the job-holder's work.
Relations	These are simple statements concerning: - the title of the person to whom the job-holder is accountable for his work. For a particular task one person can be responsible to only one superior. However, one person can hold more than one job, and for different jobs he may be responsible to different superiors. - the title(s) of person(s) whose work is supervised by the job holder. For example, a nurse/midwife may supervise several community nurses working in different villages. She is responsible to see that they perform their work properly.
Qualifications	A section on qualifications describes the basic training and level of experience required for the job holder.
Training and Development	Every job description should be accompanied by a programme for the further training and development of the person holding the job. This may be, e.g., a regular programme of reading or of in-service training and opportunities to attend professional meetings. Like every other element of the job description, this should be discussed in full

and worked out with the job holder.

Review and Appraisal

This is a statement describing the process for review and appraisal of the performance of the job-holder. Normally the supervisor is expected to carry out a periodic review of his performance. The review and appraisal statement should state clearly who has this responsibility.

The appraisal may take the form of an annual confidential report written by the supervisor: or a simple statement that work is satisfactory; or a recommendation for a change in the duties, or the promotion, at the job-holder.

How to outline duties

The duties of a job are usually determined by:

(a) Tradition and training: These define how similar jobs have been done previously or are done elsewhere. For example, midwives are expected to perform certain duties according to the way they are trained and the way other midwives practise.

(b) The interpretation of the person who holds the job: Experience often leads a person to change his way of work or he adapts to new circumstances. For example, a midwife in a village has to work in a different way from a midwife in a large hospital.

Because rural health work and community work are developing and changing, it is important to look at job descriptions in a new way. They should be made useful. One way to do this is to get health workers themselves to identify their duties.

A supervisor will find it very useful to ask health workers to list their duties and then to discuss these duties with them; it may be possible to rearrange or reallocate certain duties so that they are performed more efficiently.

JOB DESCRIPTIONS

HELP TO GUIDE WORK

ORGANIZATION

Example of a Job Description

Job title: Public Health Nurse for District X.

Date: 1 March 1980.

Job summary: To provide, establish and maintain community health through family health care by working with individuals, families and the community with special emphasis on the welfare of mothers and children.

Duties:

1. To plan, organize and conduct the following health service:

   Maternal and child health,
   Family planning,
   School health,
   Home care,
   Health education of the public

2. To supervise the ordering and distribution of equipment and drugs required for the clinics of District X.

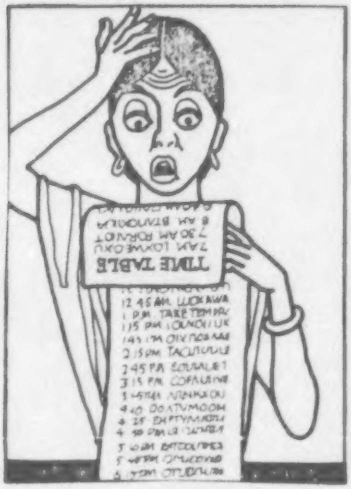
3. To supervise the work of district midwives, community health aides and supporting staff.

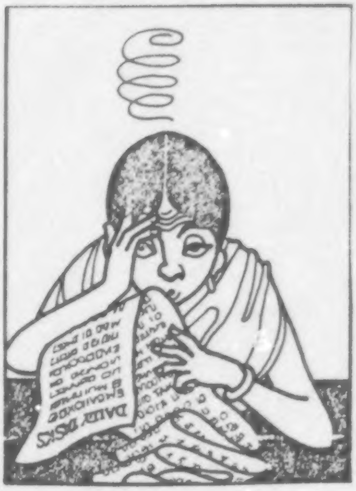
4. To arrange contacts with community groups and actively promote community participation in the health services.

Qualifications: Registered State Nurse/Midwife with Diploma in Health Education/Public Health.

Development: Prospects of promotion to Senior Public Health Nurse, or Regional Health Educator.

Appraisal: Annual increments and promotion will be dependent on a work-performance appraisal, it will be based on clinic reports, personal visits and interviews with the community health committees, made by the District Health Officer and the Senior Public Health Nurse.





3.2 COORDINATING ACTIVITIES

Coordination is bringing activities or groups of activities into proper relation with each other to make certain that everything that needs to be done is done and that no two people are trying to do the same job.

Coordination is the means of:

- distributing authority
- providing channels of communication, and
- arranging the work so that the right things are done..(what)
  in the right place ..(where)
  at the right time ..(when)
  in the right way ..(how)
  by the right people ..(by whom)

When an activity is coordinated, everything works well. A coordinated activity is orderly, harmonious, efficient, and successful

When an activity is not coordinated, it is liable to fail in its objective. An uncoordinated activity is disorderly, discordant, inefficient, unsuccessful.

An example of poor coordination

A leprosy team arranged to hold a leprosy clinic each month at a certain treatment outpost. When the day arrived, the medical assistant in charge of the health centre insisted on taking the jeep to the town to obtain supplies.

Without their transport the leprosy team could not keep the appointment. The patients waited in vain all day and then went home.

This is lack of coordination of use of transport (The element 'when' was forgotten).

Using organizational principles

To make coordination effective, eight well-recognized principles of organization must be applied:

a)	Objective	Each group of tasks must have an objective that contributes to the objectives of the organization as a whole.
b)	Definition	Each group of tasks must be clearly defined so that everyone knows exactly what the tasks are.
c)	Command	Each group of tasks must have one person in charge, and all concerned must know who this person is.
d)	Responsibility	The person in charge is responsible for the performance of the people in his group.
e)	Authority	Each person in charge of a group of tasks must have authority equal to his responsibility.
f)	Span of control	No person in charge of groups of tasks should be expected to control more than six to ten other people.
g)	Balance	The person in charge of several groups must see that the groups balance. For instance, case finding must not be so extensive that more cases of a disease are found than can be treated.

A coordinating check-list

A health worker responsible for an action, any action, will find it useful to apply the following check-list:

What is to be done? Where will this action take place? When will this action take place? Which equipment is needed? How will this action be arranged?	*coordinating the activities*
Who will take part? Who will do what? Who will lead?	*coordinating the people*
Is all necessary information available? Has the information been communicated?	*communication*

Example: *Coordinating group-activity health education by using a coordinating check-list*

1. *What are the objectives of the group learning activity?*

To encourage members of a community to participate in promoting health and health care, particularly regarding nutrition of pregnant women and young children. To follow up families who have attended the health centre and, with them, to organize a nutrition programme based on the use of local foods.

2. *Information*

The health centre serves five villages. The health workers, in consultation with village leaders, will identify one or two women in each village who will be responsible for inviting people to take part in nutrition discussions and demonstrations.

3. *WHEN will the groups meet?*

Consult with the community to find out the most convenient time of day, when women are least busy. In the village of Bargong the women prefer the afternoon. The public health nurse-in-charge discusses the matter with the midwife and a rural health worker. They arrange to visit Bargong every Thursday afternoon for a month. Then they will organize similar meetings the following month in another village.

4. *WHICH equipment and material is needed?*

Transport: Provide bicycles for the midwife and the rural health worker.
Local foods to be supplied by village group.
Flannelgraph to supplement demonstration.
Mercurochrome - chloroquine - aspirin to treat minor ailments.

5. *HOW will the meeting be conducted?*

Health workers will discuss child health problems with village women and invite suggestions regarding the content and conduct of the demonstrations.

The women will select the meeting place and between them will provide local foods and cooking utensils.

At the health centre the public health nurse will hold a 'mini-workshop' on nutrition each Monday afternoon with the midwife, the rural health worker, and others who are free to attend.

6. *WHO will take part?*

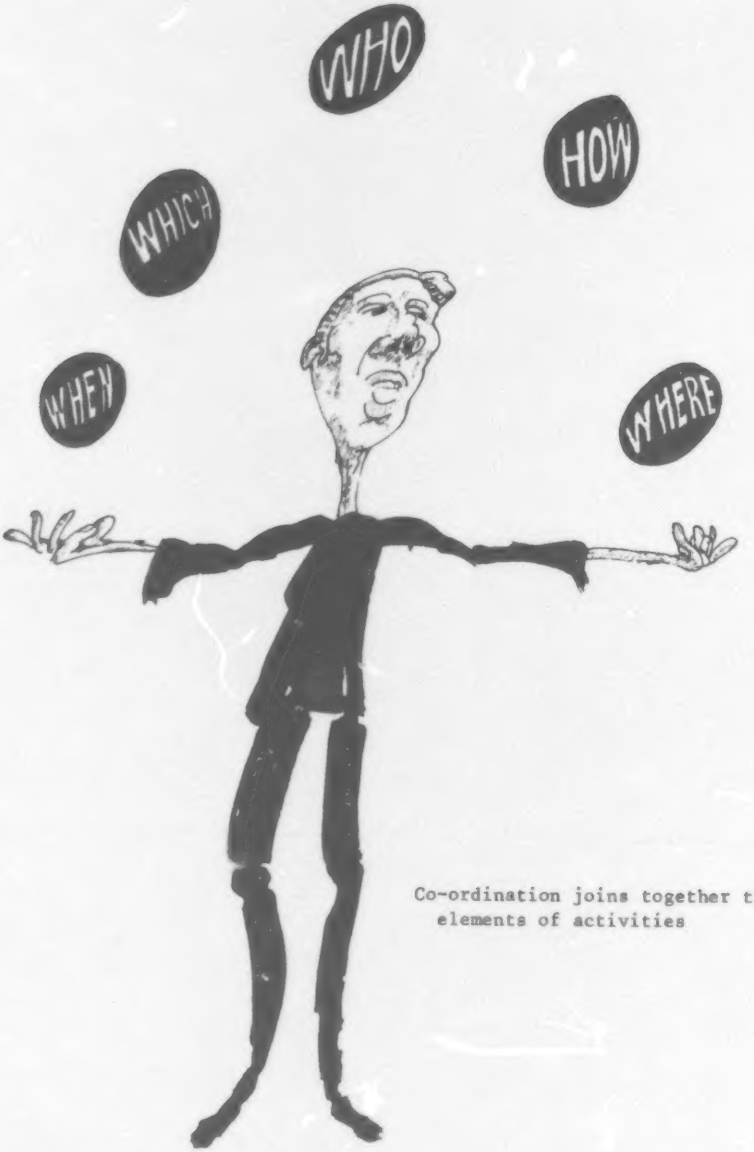
The women in the community including the young girls; village leaders; and the primary health care worker if there is one in that village.

The public health nurse will support and help with the organization from the health centre (supplies, planning the programme, etc.). The midwife will be in charge of the programme at the village, assisted by the rural health worker. The coordination in the village will be done by the leader of the women's group.

7. Communication

The village woman leader will inform other villagers. The public health nurse will inform the midwife and the rural health worker about the organization and implementation of the programme and teach and support them as necessary. Other health workers will take part in discussions on the nutrition programme and be invited to suggest other topics for village group meetings. The district health service will be kept informed of the programme and its progress.

COORDINATION HELPS
WORK TO PROGRESS
SMOOTHLY


WHO
HOW
WHICH
WHEN
WHERE

Co-ordination joins together the elements of activities

3.3 COMMUNICATING WITH PEOPLE

Communication is part of every function of management and of a health service.

Communication is a vast subject. It is much more than words. It includes behaviour, gestures, dress, music, art and also perceiving and listening.

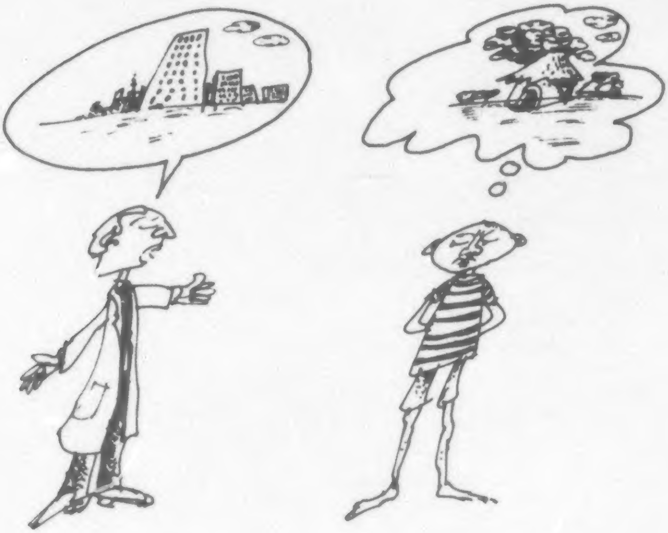
It is a two-way process betwen people. It may be between two people, or between one person and a group (e.g., the health team and the community).

To communicate effectively, a person or a group has to try to see and feel as the other person or group sees and feels. This does not mean that people or groups always agree but that they understand the others' point of view. They listen to one another. It may be a politician with people, a manager with workers, a teacher with schoolchildren or a health worker with members of the community, but in all cases good communication can take place only if both parties feel at ease and understand one another.

In communication a message is transmitted and received:

TRANSMISSION ⇄	*RECEPTION*
A message transmitted is the first half of communication	It must be received and the receiver must show that the message has been understood.

Difficulties in communication between an educated health worker and a villager



CLOUDS OF CONFUSION

Has a scientific attitude towards disease.	Has a personal fear of his own illness.
Uses medical terms.	Does not understand medical terms.
Regards the health centre as an acceptable institution.	Fears hospital. It is an unknown place.
Thinks of the 45 other people he still has to see.	Is concerned only to get well himself.
Has been educated and trained in the city and may have lost touch with rural life.	Is a working man with little or no education or experience outside his farm.

A story about non-communication in management

A medical assistant wakes up one morning and remembers there is an important meeting of the district council. It is important because it will be discussing a grant to the health centre to build a small local-type kitchen for educating mothers in nutrition rehabilitation. He takes the jeep and goes off to the meeting only 8km away.

The senior nurse arrives at the health centre and starts her morning clinic. A young nurse aide asks her to see a mother who arrived in labour during the night. Finding a prolapsed arm, the senior nurse asks the junior to find the driver to transport the women urgently to the district hospital. The junior nurse reports that neither the driver nor the jeep can be found. The sweeper is sent to search. The medical assistant's house is locked; his wife has gone to the market. The driver's wife knows only that her husband went to work that morning. The senior nurse tells the woman's relatives to find private transport urgently.

Meanwhile, a large number of patients are waiting outside the medical assistant's door to see him, and another group is waiting in the maternity clinic to see the senior nurse. Two hours have passed but nobody has told them anything. A waiting local shopkeeper is becoming annoyed; he starts shouting abuse. Nobody knows where the medical assistant is. The senior nurse advises all patients who are not in a serious condition to return home. She asks the junior nurse to take her maternity clinic while she sees the remaining patients waiting for the medical assistant. The leader of the Women's Club is waiting in the maternity clinic. She refuses to be examined by the junior nurse and demands the senior nurse. When the senior nurse arrives she explains the situation to the women's leader and the other waiting women. They then calm down and accept the situation; but say, "Why didn't you explain to us before!"

At 2.00 p.m. the district medical officer (DMO) arrives. It is a surprise visit. He had planned to visit last week but had not come. Meanwhile, all the patients who had been collected to see him last week had returned home. Because the medical assistant was absent and there were no special patients to see, the DMO decided to inspect the clinic registers. However, these were in a locked cupboard and nobody knew where the keys were kept. The DMO returned to the district hospital having accomplished nothing.

* * *

This story contains several typical instances of lack of communication.

If the medical assistant had left a note to say where he was, the jeep could have been found to take the woman to hospital. If the patients had been told of the situation earlier the non-serious cases need not have waited two hours, the local shopkeeper would not have become an enemy of the health centre, and the women's leader would not have wasted half an hour demanding explanations.

If the DMO had communicated both when he was not coming and when he would be coming, he could have seen a number of patients with difficult problems who had been waiting for his visit.

Also, it is important in a health centre that some responsible person has the keys and that the rest of the staff know who that person is.

3.4 CONDUCTING MEETINGS

Meetings are an important part of health work, especially when the work is with rural communities.

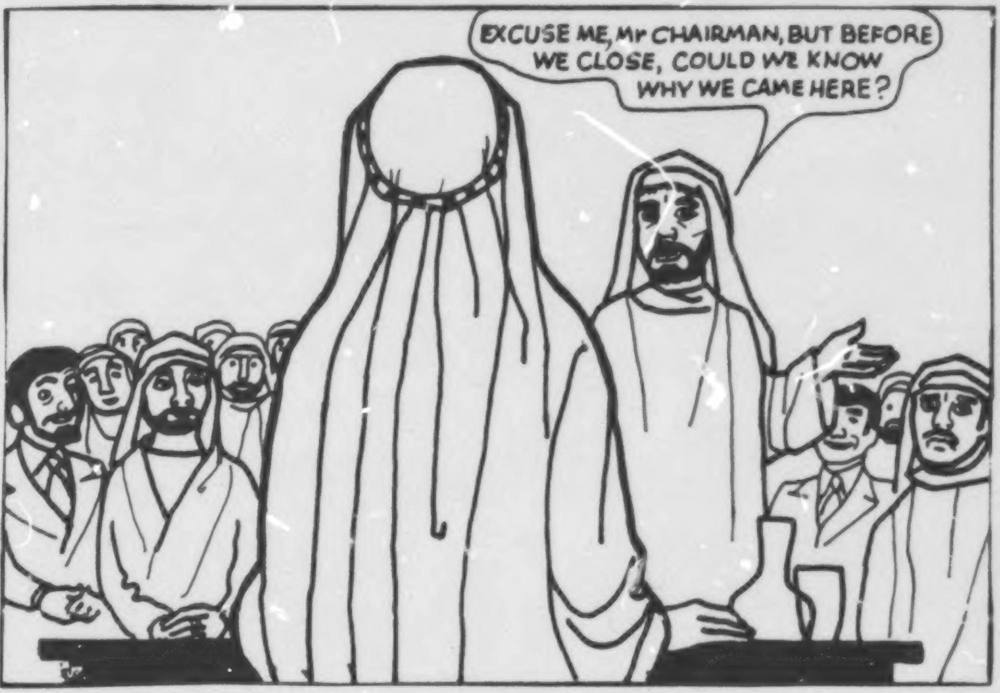
Meetings are of many kinds and can have many different purposes. There may be large public meetings, often held in the open air, to encourage people to express their views on a new project or to inform them of a development and explain it. There may be small meetings with community leaders to try to identify health problems and needs. There may be meetings with special groups such as patients or mothers for purposes of health education.

Also, there are regular meetings of the health team. Sometimes there are committee meetings to make decisions on a new project, or educational meetings or discussion groups to learn new skills and new approaches.

PREPARING FOR A MEETING

When preparing for a meeting it is useful to check the following items:

- Purpose
- Main subject-matter
- Type of meeting
- Persons expected and size of meeting
- Place, time, and duration
- Who is convening and organizing the meeting
- Announcements or information about the meeting.


EXCUSE ME, Mr CHAIRMAN, BUT BEFORE WE CLOSE, COULD WE KNOW WHY WE CAME HERE?

Purpose: Be very clear about the purpose of the meeting. For a formal committee the agenda should make the purpose clear. But it is worth while to write a brief summary of the purpose of a meeting, stating what it is hoped to achieve.

Some meetings are called to communicate information, others to exchange views and ideas, and others to make decisions about plans or activities.

Subject matter: If a meeting is to be useful, each person present must have as much information as possible about the subject to be discussed. Also, the facts, principles, or ideas needed as a basis for the discussion, must be provided, sometimes before the meeting by means perhaps of a book or a working paper, or at the meeting by a knowledgeable person or even a tape recording or a film. If the subject for discussion is new to several members of the group ask someone who has special knowledge of the subject to give a brief introduction.

Type of meeting: Meetings may be small or large, formal or informal, and open to all or only to members.

Persons expected and size of the meeting: The size of a meeting determines largely how a subject is discussed, whether everybody takes part, and whether it is easy to reach decisions or take votes.

Two or three persons may be enough when the group is meeting to share ideas or for a spontaneous discussion in a search for new ideas ('brainstorming'). A group of five to seven persons is usually large enough to provide a reasonable variety of experience and personalities and, at the same time, enable everyone to participate. As a general rule, for group discussion or training, a group should not exceed ten to twelve persons. Even with this number a small sub-group may form and dominate the discussion, while the rest of the group become mere observers.

Large meetings are more useful for communicating information and exchanging views than for discussion or making decisions.

Place and time: The choice of meeting place should avoid the need for most people to come a long way; a hall or open square at the centre of a village is often the best place.

The time chosen for a meeting is very important. For a public meeting it must suit the public rather than the organizer. People who work all day prefer evening or week-end meetings.

The convener and organizer: The convener is the person who calls people together for a meeting. It may be the health worker or a community leader or the chairman of the group that is holding the meeting. It must be clearly understood who the convenor is.

The organizer, who may be the same person as the convener, or a helper, makes the arrangements, e.g., hires or borrows the meeting-place, informs the members, invites the speakers, and provides information in advance about the meeting.

Announcements or information about the meeting: All those concerned with a meeting should know about it in plenty of time. Notices about a meeting may be in the form of written invitations, but usually they are posted up on walls and doors in public places such as shops or post offices.

CONDUCTING A MEETING

How a meeting is conducted depends on whether it is large or small, formal or informal. The chairman should be someone who can promote good communication.

In conducting any meeting the following factors are important:

Communication: The success of any meeting depends on the quality of communication.

If the purpose is to pass on information or to explain something, the speaker should find out if this has been done successfully, e.g., by allowing questions and discussion which will show whether the subject has been understood.

If the purpose is to seek the views of members, the chairman or secretary should summarize the views expressed or put them in different words to obtain the agreement of those present about what has been said.

Quarrels and shouting at meetings do not help. They are often the result of poor communication. There are fewer disagreements when people understand each other clearly.

A GOOD MEETING

IS SUCCESSFUL COMMUNICATION

The role of the chairman: The chairman keeps the meeting to its main purpose, gives everyone a fair chance to take part, controls the timing, and keeps order.

There are three simple rules for group meetings:

There must be no rudeness or personal remarks; a member must never be made to appear foolish by another member.

The chairman must have the absolute right to control the discussion, to rule out irrelevant remarks, and to bring the proceedings to a stop if necessary.

The chairman should be able to keep the discussion going if necessary, e.g., by raising new questions or topics. In a small meeting all present should be stimulated to take part. Those who are too talkative should be discouraged from talking too much, and those who are hesitant about joining in should be encouraged.

Controlling the time: Controlling the time that discussions and questions take is an essential part of conducting a meeting. Members' questions and discussions must be kept within a definite time, to give everyone a chance to speak.

A small-group meeting should have a definite time-limit if the subject allows, or if the discussion is likely to be long. Target times should be set at suitable intervals. Using time in this way helps people to bring their ideas into focus.

If a decision cannot be reached in time, it is advisable to postpone the meeting thus giving time for further thought.

COMMITTEE MEETINGS

A committee meeting is a special type of meeting. A committee is a group of people appointed by another group of people or by some person, for a special function or to attend to some particular business. There are two main types of committees: advisory and executive, and they may be permanent or temporary.

The advisory committee advises an individual or another body that has the power of decision. The executive committee has certain powers of decisions.

There are three main reasons for appointing a committee rather than an individual. They are:

- so that responsibility may be shared;
- to ensure that a reasonable range of knowledge and opinion is consulted before decisions are reached; and
- to eliminate bias due to self-interest or individual prejudice in decision making.

Committee rules and procedures

When a committee is appointed, the conditions under which it will operate must be clearly laid down, preferably in writing.

They include:

- powers and duties
- membership
- voting rights
- arrangements for meetings
- procedure (how it conducts its business)

Powers and duties: A committee cannot function effectively unless there is an official statement of its powers and duties. These are the equivalent of the authority and responsibility vested in an individual as described in Section 2.3 above.

The power of a committee determines what decisions it can take.

The duties of the committee determine what its responsibilities are.

Membership: There must be clearly stated rules for appointing members to a committee, for filling vacancies that may occur, for fixing the duration of membership, and for co-opting[a] members.

Voting: The voting rights of members, including co-opted members, of a committee must be defined.

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[a] To co-opt: to elect to a committee by votes of existing members.

Arrangements for meetings: The rules should specify how often the committee must meet; the procedure for calling a meeting, and who may call it; and how far in advance notice must be given.

Procedure: There must be agreement on the committee procedure, i.e., how its business is conducted. This must include a rule which states how decisions are reached, e.g., by single majority, a two-thirds majority, or unanimously. Generally, decisions are reached by majority vote, with the chairman having a casting vote in the case of a tie; normally the chairman does not vote.

Sometimes a committee must reach decisions unanimously. A disadvantage of this is that one dissenting member may block the committee's work.

The chairman or presiding officer is either appointed by the person or group that sets up the committee, or elected by the committee members.

The chairman convenes the committee, decides on the agenda, leads the meeting, and signs the records (i.e., the minutes) of the meetings when they have been approved by the members.

He calls on members to speak at committee meetings, and in certain circumstances can deny a member the right to speak.

He puts motions (i.e., formal proposals) to the committee to be voted on and declares them passed or rejected.

The secretary records committee decisions. Like the chairman, the secretary may be appointed by those who set up the committee or elected by the committee members.

The secretary's main task is to make a record of the main events of the meeting and in particular to record:

- the names of members present;
- the names of any visitors;
- the names of members who were absent and of those who apologized for their absence;
- the exact wording of any decisions taken;
- summaries of discussions leading to these decisions; and
- the date of the next meeting.

In recording discussions it is customary not to record the names of members who made particular points.

The order of business is as follows:

The Chairman calls the meeting to order, i.e. to begin the formal business of the meeting. He announces the names of members who have sent apologies for absence, and if there are new members he introduces them (i.e., makes them known to the other members). He recognizes (i.e., accords notice to) any guests who may be present.

The secretary reads the minutes (records) of the previous meeting.

Members can raise questions about the accuracy and completeness of the minutes and propose additions or corrections.

When all members who wish to do so have commented, the chairman will ask for a proposal (i.e., a motion) to approve the minutes. Someone proposes the motion and another seconds it. The chairman may then give opportunity for further and final discussion, and if there is no discussion the chairman or another member will "put the question", at which point a vote is taken. Normally the minutes are approved but slight changes are sometimes made.

The committee then discusses each succeeding agenda item and makes a decision on each one.

3.5 TRAINING STAFF

In life, learning never stops. Health workers learn all the time from new experiences.

Health care is a wide area of activity. Also, medical knowledge changes and growscontinuously. There are new ways of preventing disease, new drugs, and new examination techniques and methods of treatment. Because the knowledge needed for health development is so wide in scope and changes so fast, health workers should be ready to learn continuously to improve and update their health-care and educational knowledge and competence.

LEARNING BY TEACHING

One of the best ways to continue learning is to teach, because good teachers keep their knowledge and skills up to date for the sake of their students.

Similarly, the good health-team leader keeps the team members well informed and teaches or arranges training for them whenever they need new knowledge and skills.

CONTINUE LEARNING BY
TEACHING OTHERS

Every team leader has an important training role. In particular, fully trained staff such as a medical assistant or nurse should be prepared to train village health workers for primary health care tasks.

A supervisor who undertakes to train health-team members should ask:

WHAT needs to be learned and taught?

HOW best to learn/teach it?

Has the intended learning occurred?

WHAT NEEDS TO BE LEARNED AND TAUGHT?

Lack of training is not the only reason that people do not do what they should do. Other reasons include:

- insufficient resources, e.g., lack of drugs
- the health worker may not have a clear job description or clear instructions
- the health worker used to work hard but is discouraged by lack of reward or no promotion
- the team members may not be working well together

To identify a training need, two questions may be asked:

Is there a work deficiency?

For example, there is a low attendance at clinics: records show few immunizations and no improvement in sanitation in a village; there are many mistakes in record weight-graphs.

Can training improve this particular work deficiency?

Ask the key question: What would the staff member be able to do after training that he could not do before?

Before starting a training programme, the manager must ask himself: WHICH ARE THE TASKS THAT HEALTH WORKERS SHOULD BE DOING THAT THEY CANNOT DO BECAUSE THEY HAVE NOT BEEN TRAINED TO DO THEM.

Generally, health workers have received some basic training before they are appointed to a health team. However, very often, there are tasks to be carried out in different communities for which one or more health workers need to be further trained or retrained, or sometimes one health worker must take over the tasks of another health worker and must be trained for them.

The health team supervisor should always be in a position to advise his staff about their learning needs; this is an important aspect of control and supervision.

It is a waste of time to train people to do what they already can do. Staff should be tested before beginning a training programme, to find out what they already know and can do, and what new knowledge and skills they need.

Do not train people for tasks they will not be allowed to do or will not be able to do for lack of facilities. It is very frustrating not to be free to do something one is able to do.

TRAIN FOR SKILL AT WORK

When the supervisor has identified a training need or needs, he should write down clear specific objectives.

A training objective states

- what the learner is expected to be able to do at the end of training that he could not do before.

Examples of learning objectives

Example 1 *At the end of training, given suitable equipment, the student will be able to take, fix, label, and pack smears.*

Example 2 *At the end of the training course, given mixed groups of patients with various complaints, and non-patients, attending the clinic, the student will be able to identify nine out of ten new cases of leprosy and register them correctly.*

Question: *Do the stated objectives make it clear to the teacher and learner alike exactly what the learner is expected to be able to do at the end of his period of training?*

The objectives of training must be made known to learners. Also it is very important that learners should take part in deciding their own training objectives, that is, what they need to learn in order to perform their work competently.

The characteristics of training objectives or learning objectives are the same as those of the general objectives. Thus, they should be achievable; agreed, understood, and accepted; limiting; observable and measurable[a], and relevant to the work to be done.

In order to ensure these five essential characteristics, four aspects must be considered. These are:

- the characteristics of the learners
- the future functions and tasks of the learners
- the conditions that must be provided for the performance of those functions and tasks
- the standard or level of performance to be reached.

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[a] Words useful to indicate behaviour

The correct types of verb must be used to describe the action or behaviour part of each definition of a learning objective.

The words used must indicate activities that can be seen or heard, and thus can be measured directly. Examples of action words useful to indicate such behaviour are:

write, recite, describe, list, define, copy, draw, find, identify, register, label, construct, build.

The important characteristics of the learners are: their knowledge and abilities from their previous experience and education, their motivation, their intelligence, and their physical and mental health.

The future functions and tasks of the learners determine what the training objectives and learning objectives will be, and the methods and settings to be used in training.

The conditions in which trainees learn new skills should be similar to those in which they must later practise; e.g., a health worker will be able to teach an illiterate mother how to carry out oral rehydration of an infant with diarrhoea, in the mother's dwelling, so that the mother does not need any further supervision; or, a community health worker will be able to explain to a village chief how to obtain materials for constructing a safe well so that the chief can do so without further explanation.

The standard or level of performance to be reached should be clearly stated.

HOW BEST TO TEACH AND LEARN (METHODS OF TRAINING)

Methods of training and learning

The methods to be used for training and learning can be chosen after the learning objectives have been set and written. The methods must suit the objectives; e.g., how to give an injection is learned by demonstration, explanation, practice on some inanimate object, and, finally, practice under supervision on a person. Or, how to train schoolchildren in hygienic habits, at some stage demands that the student must conduct training sessions with schoolchildren until the skill has been learned to a level that the objective has specified. Or, learning to assist with the delivery of a baby, means that a combination of methods must be used that include reading, explaining, and practice with a model until it is safe to permit practice under supervision at an actual birth.

As a general rule, the selection of methods of teaching and learning should follow the description and analysis of the task to be carried out, so that suitable methods can be selected to learn the knowledge needed and each of the skills that must be mastered before the task can be skilfully performed.

Individual on-the-job training

For most of the skills that the health worker has to learn, on-the-job training in which he learns as he works is the most effective method. However, to the extent that it is one-to-one training, i.e., one teacher to one student, it takes up a great deal of the teacher's time if several trainees are involved. Another possible disadvantage is that a student who works alone lacks the stimulation that training with other students, and sharing ideas with them, would provide. For these reasons, it is advisable to organize this type of training for several trainees together.

The closer the trainee is to the time and place where his new skill will be used in practice, the better.

As soon as you find that a member of your team is unable to do something he should be able to do, because of lack of training, it is advisable to set aside time to teach him there and then. It is not necessary to wait until a formal refresher course can be organized.

Individual reading

Books and other reading material are the most readily available and the most useful educational media that exist. Health workers can improve their knowledge and understanding of health problems and their control by systematically studying reading material that you can make available for them. Also, carefully selected readings can greatly assist students to acquire many of the skills of community health work. You should try to obtain sets of specially prepared books of courses of individualized instruction.

Small-group learning

Teaching students in small groups has the advantages of close personal contact between the learner and the teacher but takes less of the teacher's time per student than individual teaching and gives the student the stimulus of interacting with others. Informal discussion groups or question-and-answer sessions between students can be very valuable aids to learning.

Groups can vary in size from two people to a maximum of about twelve. Different sized groups are used for different purposes. In clinical teaching, for instance, a group of about seven is suitable for ordinary case-demonstration and discussion. But for some purposes, a group of two or three is the maximum size to permit efficient teaching and learning.

Class-room learning

People learn best when they are actively engaged in learning. In a clinic or an active small-group setting such as a training workshop this is easy but in a class-room it may be difficult. However, even in a class-room the teacher can design settings which permit students to take active learning roles.

The lecture as a method of teaching should be used only when it is the best way of achieving the learning objective of the moment. Usually it must be combined with other methods that demand active student engagement. It is only very rarely that a series of lectures is the best main way to teach a course. Most of the aims of lectures can be better achieved by means of student reading.

Learning new skills

Learning new skills takes time and should not be hurried. The trainer should demonstrate the whole skill, break it down into small segments that the trainee can learn relatively easily, and then reconstruct the skill as a whole. This is known as the whole-part-approach to skill training.

Learning a skill usually begins with observation. During this period the trainee is acquiring knowledge, and in this process, progress can be fairly rapid.

The second step is one of imitation. Here the trainee imitates the actions of the trainer. It is at this stage that breaking the skill into its component parts is necessary. Acquiring these detailed individual skills will take time and the trainees can easily get discouraged at this stage.

Once the trainees are able to imitate their master, they should begin to practise the skill under supervision. This will be slow to begin with. Once a skill has been acquired in individual segments they must begin to practise the skill as a whole.

At this stage, the trainee knows what he should be doing and is beginning to acquire control over his own actions in doing it. As he acquires mastery of the skill, his actions will quicken.

Finally, he will reach a stage where the skill is practised more or less automatically. Once this degree of skill has been acquired it is almost never lost. Unlike book learning, when skills are well learned and practised they are retained even though they are no longer used.

A skilled worker who is himself able to analyze what he is doing can begin to teach others what he has mastered.

HAS LEARNING OCCURRED? (TESTING ACHIEVEMENT)

The aim of all training is to enable the trainee to do things after training he could not do before. If the objectives of training are clear, teachers can the more easily assess the progress of the students and the students can assess their own progress also.

Testing should be governed by the objectives. If, e.g., the purpose of training is to enable the trainee to correctly complete a household census, he should be tested on his ability to complete household census forms. Asking him to write an essay about the completion of household census forms is not an appropriate way to test him for this skill. You are not training people to write essays but to do practical work.

This principle can be applied to all types of training.

Can the learner now do something he could not do before, as a result of training?

TEST ACHIEVEMENT OF

LEARNING OBJECTIVES

SUMMARY

ALL HEALTH WORKERS NEED TO CONTINUE LEARNING.

SUPERVISORS SHOULD HELP IN THE CONTINUING LEARNING OF THE HEALTH TEAM.

TRAINING NEEDS ARE IDENTIFIED BY EVALUATING THE WORK PERFORMED.

LEARNING OBJECTIVES STATE WHAT THE LEARNER WILL BE ABLE TO DO AFTER THE TRAINING PERIOD THAT HE COULD NOT DO BEFORE.

TRAINING METHODS DEPEND ON THE OBJECTIVES; KNOWLEDGE AND UNDERSTANDING CAN BE OBTAINED BY READING AND DISCUSSION; SKILLS ARE ACQUIRED BY REPEATED PRACTICE OF THE SKILLS UNDER SUPERVISION UNTIL THE REQUIRED LEVEL OF PERFORMANCE IS REACHED.

TRAINING IS TESTED BY FINDING OUT IF, AND TO WHAT EXTENT, THE LEARNING OBJECTIVES HAVE BEEN ACHIEVED.

Chapter 4: Controlling and assessing the work

LEARNING OBJECTIVES

After studying this section and performing the exercises on page 138, the health worker should be able to:

- maintain the expected amount and quality of a health team's work.
- assess the performance of team members.
- identify some causes of work deficiences.
- help with personal problems.
- resolve disputes among team members.

CHAPTER 4

CONTROLLING AND ASSESSING THE WORK

When the objectives and duties of a health team have been well planned and the team members have been carefully selected, trained and instructed, control measures can be devised to see that the teams work programme proceeds as expected and to help the team and its supervisors to maintain the expected amount and quality of work.

4.1 MAINTAINING WORK STANDARDS

Control guides the programme and assures certain minimum standards. It is necessary for the following purposes:

(a) To ensure that work is done according to objectives set and activities planned, within the time allotted and with the resources provided.

(b) To enable supervisors to recognize gaps in health workers' knowledge and understanding, and arrange for appropriate training.

(c) To enable the supervisors to recognize and reward good work, and to recognize staff suitable for promotion and advanced training.

(d) To enable management to ensure that the resources provided for the work are adequate and are being properly used.

(e) To enable the management to identify the causes of work deficiences.

It is not enough to give people directions and then expect them to carry them out. Health workers need continuing support and encouragement. One way to provide this support is to review their work with them.

Health workers welcome the supervisor's visit. They know it gives an opportunity for good work to be recognized

Good control should be:

- timely. To maintain work standards, control measures being taken at the right times, depending on their purposes at any particular time.

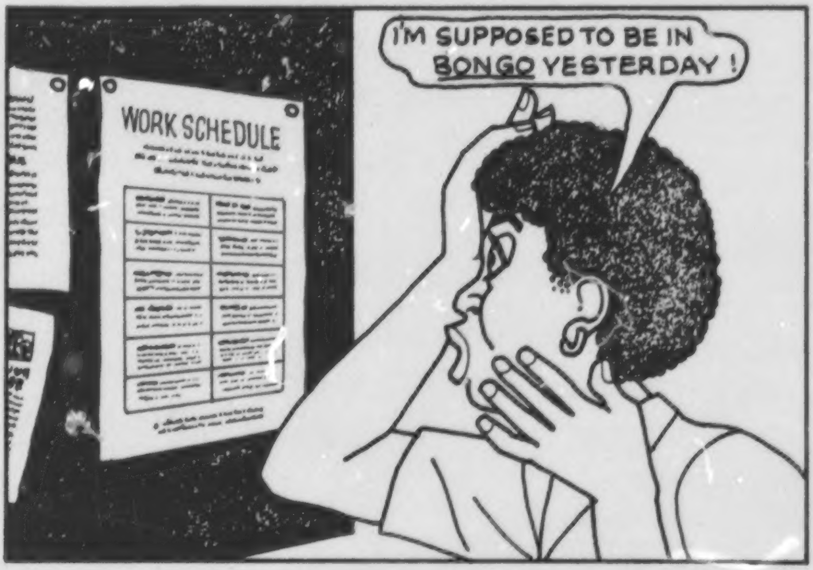
- simple. Control measures must be simple. If they are not simple they will take too long to apply and to give the information needed.

- minimal. Controls should be as few as possible, i.e., as few as needed to see that the work is done and standards are maintained.

- flexible. Too rigid controls may be self-defeating: staff will try to evade them.

Methods of control in a work team

Instructions (including job descriptions, objectives and targets): Instructions must be clear enough to be understood by all concerned. The supervisor must make sure they are understood. They must be practicable and within the capability of those who are to carry them out; adequate resources to carry them out must be provided. Instructions must be stated in such a way that the results can be easily assessed.


WORK SCHEDULE
I'M SUPPOSED TO BE IN BONGO YESTERDAY!

Using work schedules[a]: A work schedule shows what a worker is to do, and the day and time it is to be done.

Work schedules are particularly important for staff who work alone or with few other people. They let the health worker in charge of the team know what the team is doing on a particular day and time, and enable health workers to make the best use of their time.

The more specific the work schedule is the better. Health workers should be required to prepare their own work plans and discuss them with the team leader. (Detailed guidelines about work schedules are set out in Part III, Chapter 4.)

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[a] By schedule is meant a detailed list of activities with the time and date for each activity.

Time is a most important resource. It cannot be stored or increased. Time cannot be bought: it can only be spent or wasted. A work schedule helps staff to use their time in the best way, to measure how long certain tasks take to perform, and how much work can be done in a given period of time.

Visits by the supervisor. Nothing can take the place of visits made by the supervisor or team leader to health workers at their place of work. This applies particularly to management of isolated rural health staff.

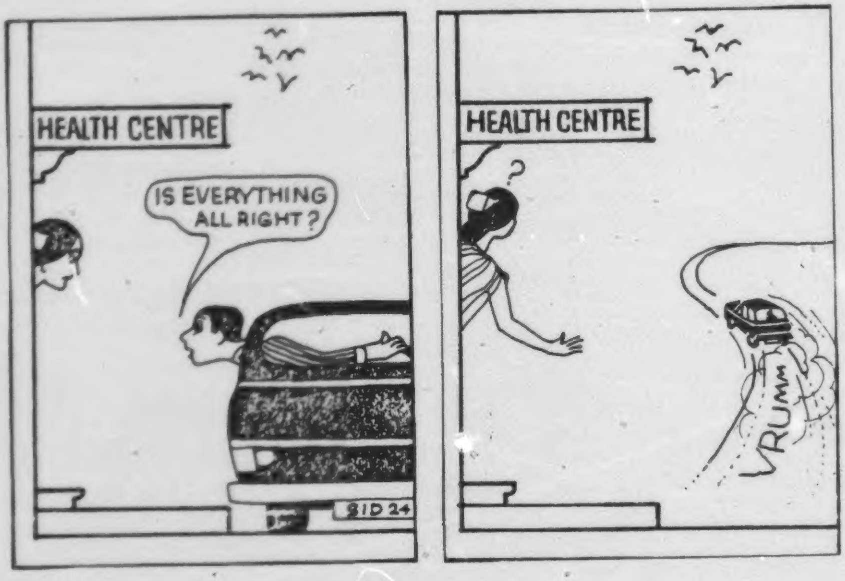
Personal visits by the supervisor should help every worker. The worker can say to himself, "He knows that I am here and that what I do is important enough for him to come to see me." The personal visit assures the worker that the team leader is someone to whom he can turn for help when he needs it.

Above all, the visit gives an opportunity for the exchange of ideas. It gives the supervisor an opportunity to listen to the health workers, to be exposed to their problems, and to hear their ideas for improving their own work. It provides excellent opportunities for in-service training.

Each visit should have a definite purpose and should be long enough for the supervisor to fulfil that purpose. Visits that are hurried and brief defeat their objective and leave staff discouraged and disillusioned rather than encouraged.

In general an unannounced visit is not good practice. It suggests to the worker that he is not trusted by the supervisor. Staff should be encouraged to prepare for the supervisor's visit and to think clearly about the sort of help they want from him during the visit.

It is helpful if the supervisor has a check-list of what he wants to look for. This will vary with the nature of the particular facility, department or individual he is visiting.



4.2 ASSESSING WORK PERFORMANCE

Here we are concerned with assessing the work of members of the health team.

Assessing is what a supervisor or team-leader does to determine how close his staff comes to achieving their work targets. It must be based on clear statements of objectives and targets that are:

- relevant to the community's needs
- feasible
- measurable, and
- known and agreed to by the staff whose performance is being assessed.

The targets may have been presented to the worker in terms of the performance and standards laid down in the job description. They may be specified in instructions received by the worker during training or on-the-job orientation. They may be part of routine instructions. They may be specific targets worked out by the worker and his supervisor at the beginning of the period that is being evaluated.

The targets, instructions, standards of performance and routine instructions define what the members of the health team are expected to achieve.

An important purpose of assessment is to help people to discover their strengths and weaknesses so that they can make the most of their strengths and correct or minimize their weaknesses. It should reveal to the worker and the supervisor what are the worker's possibilities for growth and development, and needs for further training, or to what extent further training would lead to improved work performance.

Assessment should be continuous. It is very bad practice to make no performance assessment until the time comes for the worker to face his supervisor when the annual confidential report has to be made.

The good supervisor will try to see health workers regularly to discuss targets and achievements, successes and failures, strengths and weaknesses. The supervisor must help health workers to respond to helpful criticism and improve their performance.

Assessment of a health worker's performance is best made by his immediate supervisor, the person who sees him most often. If it is made by someone who rarely sees the workers and has little knowledge of how they work, it is not only unjust but also it undermines the authority of the immediate supervisor and deprives him of a sense of responsibility for the work of the staff under his supervision.

Sometimes it is useful to use a check-list when assessing work performance, as shown in the following example.

Example. Check-list for assessing work performance

Code: Y - yes N - no P - partly

Name of health worker ....

		Dates					
Work relations	*Arrives punctually at work*	*N*					
	Relations with colleagues good	*Y*					
	Has recently quarrelled	*N*					
Output	*Clinic registers show good attendance*	*Y*					
	Has achieved target in home visits	*P*					
Skills	*Recognizes common illnesses*	*P*					
	Detects at-risk pregnancies	*P*					
	Sterilization techniques adequate	*Y*					
	Clinical records clear	*Y*					
	Supplies and stocks well ordered (systematically arranged)	*P*					
	Submits reports regularly	*N*					
Extra	*Participates in staff discussions*	*Y*					
	Volunteers for extra duties	*N*					

Signature of supervisor...............................

See also Management Audit (Part IV, Chapter 3)

Finding work-deficiences

There are many reasons for poor work performance. Many are NOT the fault of the health worker.

Some reasons are:

- Insufficient resources, e.g., lack of drugs
- The health worker may not have a clear job description or clear instructions
- The health worker used to work hard but is discouraged by lack of reward or no promotion
- The team members may not be working well together
- The supervisor does not give enough encouragement
- The worker is worried by personal problems.

Insufficient training is only ONE reason for poor work performance.

SUMMARY

SUPERVISORS AT MIDDLE LEVEL ASSESS HEALTH WORKERS ACCORDING TO OBJECTIVES AND TARGETS, AND JOB DESCRIPTIONS.

THERE ARE MANY POSSIBLE REASONS FOR WORK DEFICIENCY AND ALL SHOULD BE INVESTIGATED.

SOME WORK DEFICIENCIES CAN BE IMPROVED BY TRAINING. THESE CAN BE IDENTIFIED BY ASKING THE QUESTION: "WHAT WILL THIS PERSON BE ABLE TO DO AFTER TRAINING THAT HE COULD NOT DO BEFORE?"

4.3 RECORDS AND REPORTS

a) RECORDS are the information kept in the health unit on the work of the unit, on the health conditions in the community, on individual patients, as well as information on administrative matters: staff, equipment, supplies, etc.

Usually, records are written information kept in notebooks or in folders; they may also be kept on tapes or be computerized. Records are the administration's memory.

Records are an important tool in controlling and assessing work; they are kept to help the supervisor to:

- learn what is taking place;

- make effective decisions;

- assess progress towards goals.

Records should be accurate, accessible and useful. In other words, they must be true, available when needed, and contain information that management uses. Do not record information unless you know it to be true and will use it.

Before asking health workers to make any record, the supervisor should ask himself the following questions:

Will this information be used?

Precisely what useful part will it play in decision-making and evaluation?

Can this information be collected accurately enough to serve its purpose?

Will the information be accessible?

Will it be available at the place and time it is to be used?

Can the records be stored at reasonable cost?

Does the record have to be made only because it is part of routine instructions?

Accurate records help team leaders to follow the activities of a programme continuously according to need.

Special forms, which may differ from country to country, are often prepared and adapted to local conditions. These forms will help the health staff to record the information requested, facilitate the standardization of the information collected and save time for all concerned. See also Part III, Chapter 6.

b) REPORTS are the information communicated to the other levels of the health services. They are also an important management tool to influence future actions.

The type of the report (oral or by telephone or radio in emergency cases, written in normal circumstances), its content (statistical information on births, deaths, morbidity or comments on programme developments or difficulties), and its frequency and utilization will differ from country to country.

It is often found convenient to have reporting forms printed and distributed in advance to the health units and centres, again to standardize information. An example of a village health worker's report is given on the next page:

HEALTH REPORT FOR THE VILLAGE OF _______________

YEAR _______ **MONTH** ___________ **NAME OF PHW** _______________

1. Number of births during the month:
_______ **male**
_______ **female**
_______ **born dead**
_______ **TOTAL BIRTHS**

2. Number of deaths during the month:
_______ **under 5 years old**
_______ **over 5 years old**
_______ **TOTAL DEATHS**

3. Number of patients seen during the month:
_______ **under 5 years old**
_______ **5 years and over**
_______ **TOTAL PATIENTS SEEN**

4. Number of patients referred: _______.

5. Type and number of complaints during the month:

_______ **fever**	_______ **burns**
_______ **diarrhoea**	_______ **malnutrition**
_______ **wounds**	_______ **others**

(This list will be developed as appropriate by the health services).

6. Other PHW health activities: _______________

7. PHW comments: _______________

* * * * * * * * *

Village Committee comments: _______________

Supervisor comments: _______________

Copies of reports should be kept by those who make them. Reports then become records. It could be helpful to have reporting forms printed in different colours: one colour to keep at the health unit, another colour for the supervisor and another for any other interested party, if relevant.

Health staff must be trained to prepare their reports following the instructions given by the health services.

4.4 DEALING WITH PROBLEMS AND CONFLICTS

Helping to solve personal problems of staff

A health worker is not only a worker. Each health worker has a personal and family life.

A good supervisor tries to understand the personal problems of his staff. There may be financial problems because a landlord has increased the rent, or a child is sick, or a relative has died, or a child has failed an important examination. Many things bring personal worries, and these worries interfere with work.

A good supervisor listens sympathetically to personal problems and, whenever possible, tries to help solve them.

A person who feels that his problems are considered with sympathy is able to work better. A person who feels that a supervisor does not care and is unsympathetic may feel resentful and angry, and this may affect the quality of the work.

Preventing and settling disputes

Disputes often occur when people work together in groups and teams. As team leader, the supervisor is expected to prevent or settle them.

Preventing disputes: The commonest cause of disputes in a work team is confusion, i.e., people have different ideas about what is to be done and how it is to be done.

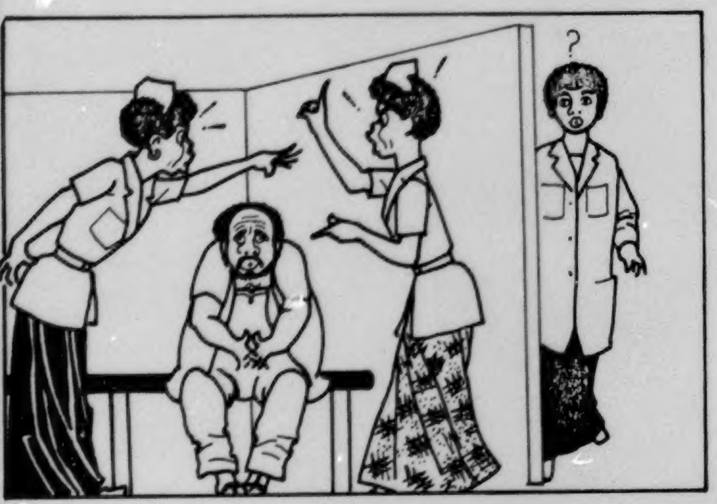
Such disputes can be reduced or prevented by:

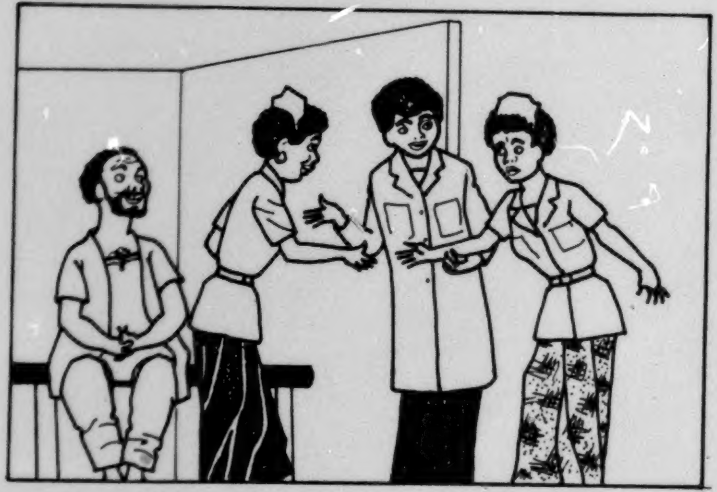
- frequent meetings of health-team members.
- allowing people to express views openly and letting the whole group decide.
- sharing agreed objectives.
- having clear and detailed job descriptions.
- having clear instructions and procedures to follow.
- distributing tasks fairly.
- making work-schedules that distribute work fairly.

A common cause of argument is jealousy and favouritism. A supervisor must behave towards each member of the team with complete fairness and justice, and must never criticize his staff in public.

Settling disputes: A serious argument may affect the whole spirit and work of a health team. Arguments must be stopped quickly and the people concerned reconciled.

First, the supervisor should interview each person involved separately. This is important because, otherwise, certain relevant facts will remain hidden. Second, he must try to decide what is the real cause of the argument. There is a saying, "It takes two to make a quarrel". This means that although one side may be more at fault than the other, usually there are some faults on both sides. Third, ask each person separately how he thinks the argument can be stopped and if he is willing to be reconciled. When the real cause is understood and a solution suggested, persuade both sides to stop arguing and work together again. When no agreement can be reached, the best solution is to 'bury the matter' and 'agree to differ', i.e., to hold different views but not to argue about them.





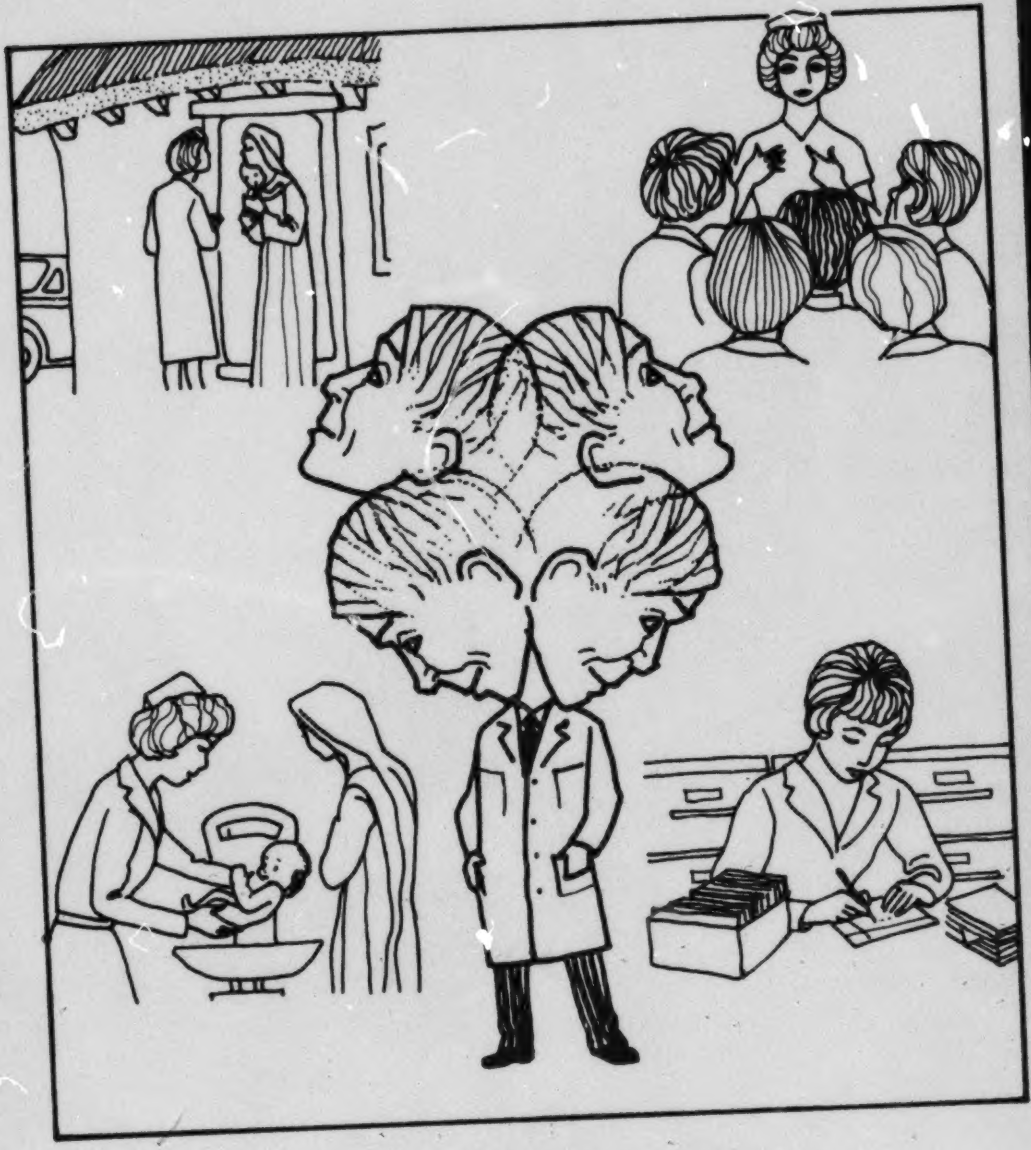
SUMMARY

THE SUPERVISOR TRIES TO UNDERSTAND THE PERSONAL PROBLEMS OF HEALTH WORKERS.

THE SUPERVISOR TRIES TO PREVENT QUARRELLING AND BAD FEELING AMONG MEMBERS OF THE HEALTH TEAM.

THE SUPERVISOR TRIES TO RECONCILE PEOPLE WHO QUARREL, TO BRING THEM TOGETHER.

CLEAR INSTRUCTIONS AND JOB DESCRIPTIONS, AND SYMPATHETIC SUPERVISION, HELP TO PREVENT DISPUTES.



Management means promoting harmonious relations, observing, controlling, evaluating, and maintaining work standards, to meet the health needs of the community.

Exercises

Note: Exercises have not been prepared for Chapter 1. Teachers are recommended to prepare some themselves.

PART II

Chapter 2

How to lead a health team

EXERCISE B.1 Supervision, motivation and leadership

Objective: To recall individual experiences which illustrate the main factors in motivating. (Material relating to motivation will be found throughout Part II and not only in Chapter 2).

Individual or sub-group

1. Make a list of things you have particularly liked about good supervisors you have known.

For instance, one item on the list might be "He was always ready to help me when I went to him with a problem."

2. When you have completed your list, try to summarize each item in two or three words.

For instance, "Always ready to help."

3. Make brief notes to describe three or four different situations in which you found yourself very strongly motivated to undertake some task.

For instance, "One of my sons was swept off his pony into a raging river. I immediately jumped off my horse and plunged in after him."

4. When you have made your notes, try to identify the factors that produce this strong motivation.

5. Try to identify the factors that made leadership effective in the situations you have described.

EXERCISE B.2

Objective: To identify factors in poor leadership

Individual

1. List things you have particularly disliked about not such good supervisors you have known.

For instance, "He never trusted me to do my work but was continually looking over my shoulder."

2. After making your list, try to summarize the items in two or three words.

For instance, "L[illegible] of trust."

3. Try to identify the factors in the situations you have described that make them particularly poor examples of leadership.

EXERCISE B.3

Objective: To identify motivating factors.

Group

Members of the group are asked to present the material they have prepared during the individual exercises B.1 and B.2. The group leader will then summarize and organize their findings.

1. Lists of things liked about good supervisors, (motivating factors) and things disliked about poor supervisors (dissatisfiers).

2. Situations in which strong positive motivations were found.

3. Situations in which effective leadership was exercised illustrating an individual either setting an example or taking responsibility or both.

4. Situations in which ineffective leadership was exercised illustrating failure to accept responsibility or setting a poor example, or both.

EXERCISE B.4 - Self-evaluation test.

Objective: To assist the student to find out what he believes about motivation.

Individual

Work through the following statements. Answer by circling T for true if you agree with the statement and F for false if you disagree. Try to substantiate your agreement or disagreement by examples from your own experience.

Most people do as little work as they can get away with. T F

When people avoid work it is usually because they cannot see any use for it. T F

Team members who are given all the information they want about their work tend to do better work. T F

Team members who are given more information than is absolutely necessary will tend to misuse it. T F

Most of the suggestions that team members make about improving their work are made to help them get more pay and do less work. T F

Asking team members to make suggestions about ways to improve the work will result in their taking a more serious interest in the work only if their suggestions are accepted. T F

Most health team members don't have much initiative or imagination because of their poor educational background T F

People tend to lower their standards if they are not punished in some way for mistakes. T F

Most people work harder and better if they are given responsibility for their own behaviour and not supervised too closely. T F

People who are allowed to set their own goals and standards of performance tend to set them higher than their supervisor would. T F

The more freedom and knowledge a person has regarding his job, the more controls he needs to keep him in line. T F

[Adapted from M. Scott Hyems, "Every Employee A Manager." Mc Graw Hill Book Co., New York, and David A. Kolb, Erwin M. Rubin and James M. McIntyre, "Organizational Psychology, An experimental Approach." Second Edition, 1974, Prentice-Hall Inc., Englewood Cliffs, New Jersey]

The above statements may be used as material bases for group discussion and class discussion.

EXERCISE B.5 Self-evaluation exercise.

Objective: What do you feel about leading?

Individual

Respond to the following statements by checking the 'agree' or 'disagree' blank. Try to give examples from your own experience to support your answer.

	Agree	Disagree
Most people do not care whether they do good work or not.	_____	________
Health team members give better health care when their work is recognized.	_____	________
Health team members give better health care when they are closely supervised.	_____	________
Health team leaders should try to motivate their team members by giving them responsibility for their own work.	_____	________
The importance of good records is so obvious that there is no need to explain the uses of records to health team members.	_____	________

The best way to motivate people is to pay them a higher salary. _____ _____

Health team members should be discouraged from trying to better themselves because if one member of a team is promoted, others will become envious. _____ _____

Provided salaries are paid on time, most health team members won't be disturbed by other signs of poor administration such as late deliveries of medicines. _____ _____

People work together better when they are agreed about the goals of the work. _____ _____

It does not matter to health team members if the supervisor has favourites amongst them. _____ _____

People do not respect a leader who asks their opinion before making decisions about the work. _____ _____

People will lose respect for a leader who admits he has made a mistake and changes his decision about an important matter. _____ _____

These statements also can be used as the basis for group or class discussion.

EXERCISE B.6 Self-evaluation. What sort of leadership do you favour?

Objective: To enable students to recognize their own ideas about leadership.

Individual

This test is a semantic differential. You are asked to put an X on the one-to-five scale for each pair of properties indicating what your opinion is about them.

For instance, in statement a you feel that jobs should be clearly defined and not changed, then put your X under number one.

If you feel jobs should be flexible and people should always discuss what to do, put your X under number 5.

If you feel that sometimes no changes are required but there should be limits set to flexibility, put your X under number 3.

What sort of leadership do you favour

	1	2	3	4	5	
a. Jobs should be clearly defined and not changed much.	-	-	-	-	-	Jobs should be flexible and people should discuss what to do.
b. There should be clear lines of authority with the man at the top carrying responsibility for all aspects of the work.	-	-	-	-	-	There should be a delegation of authority and responsibility to those doing the job.
c. People work best in order to get more money.	-	-	-	-	-	People work best if they get satisfaction out of their work.
d. Methods of work ought to be defined by outside experts.	-	-	-	-	-	Methods of doing the job should be left to the group and individual doing the job.
e. Targets should be set by supervisors and checked by supervision.	-	-	-	-	-	Targets should be left to the employees to set and check.
f. Groups and individuals should be given the information they need to do the job, but no more.	-	-	-	-	-	Everyone should have all information which they regard as helpful in their work.
g. Discussions on what is to be done and how it is to be done should be left entirely to management.	-	-	-	-	-	Decisions should be arrived at through group discussions including all employees.
h. There should be close supervision, tight controls and well maintained discipline.	-	-	-	-	-	There should be loose supervision, few controls and a reliance on employees self-discipline.
	1	2	3	4	5	

EXERCISE B.7 A case study or organization and motiviation.

Objective: To enable students to recognize that good organization and appropriate motivation are equally important factors in effective health care delivery.

Individual or group

I once spent nearly four hours with a certain hospital director discussing the leprosy control programme in the district around his hospital. He soon made it very clear to me that he thought the programme was very ineffective.

He said that relatively few patients were diagnosed before deformities had developed and that less than half the cases registered in the programme attended regularly for treatment.

Several times during the discussion he stated that "The system is an excellent one. The trouble is that the people running the system are not dedicated enough." I suspected that he had been the one who had set up the system. Later on I had an opportunity to look at the organization itself and how it was being operated.

I found that the doctors in the programme worked only two hours each day though they were supposed to work at least four hours and that no one took any action against them. This I was told, was because their salaries were so low that it would be unreasonable to expect them to work any longer than this. Non-medical staff in this service are expected to work full-time but they are all supervised by the doctors.

Patients who are attending for treatment are expected to come for clinical examinations once or twice a year. For the rest of the year they are supposed to take their treatment at home. There are no arrangements made for any health worker to visit them between the clinical examinations.

The treatment provided for the patients consists simply of anti-leprosy medicines. Nothing is done to help the patients deal with wounds or to correct deformities. The patients appear to get no health education. Patients who do not come for the annual or bi-annual checkup are supposed to be visited after a three-month interval by a specialist home visitor. Few of these visits are made partly because there are not enough home visitors and partly because the patients cannot be found.

The reason for patients being unable to be found is basically that the addresses they give are not accurate.

1. Do you think the delay in diagnosis is due to faults in the system or lack of dedication on the part of the staff?

2. Do you think absenteeism is due to faults in the system or lack of dedication on the part of the staff?

3. What would you do to correct this situation?

Chapter 3

Organizing health team activities

EXERCISE C.1

Objective: to practise preparing a job description.

Individual

Using the outline provided in Part II, Chapter 3.1, prepare a job description for:

A. Yourself

B. One of your subordinates

Compare these job descriptions with the offical versions.

Group

Further experience in the preparation of a job description.

1. Using the outlines provided in Part II, Chapter 3.1, each member of the group will prepare a job description for a primary health worker.

2. Group members will compare and contrast the different job descriptions they have prepared and by discussion arrive at a common job description which all of them can accept.

EXERCISE C.2 Work standards

Objective: (Exercises C.2 and C.3) To obtain experience in setting work standards.

Individual

1. Prepare a set of standards for at least some of the items on your own job description.

2. Discuss these standards with:

A. A colleague

B. Your supervisor

3. What have you learned from this exercise?

How were the standards you set for yourself rated by:

A. Your colleagues

B. Your supervisor

Were there too low, too high or about right?

EXERCISE C.3 Work standards

Individual

From your observation of a particularly good health worker, preferably a primary health care worker, describe the standards that worker actually achieves in day-to-day work.

Group

After members of the group have completed the above, they will work together to prepare a composite set of standards which all of them accept as reasonable for:

1. Their own work, and
2. The work of a primary health care worker.

EXERCISE C.4 Preparing a meeting

Objective (Exercise C.4 and C.5): To practise preparation of a meeting.

Individual or Sub-group

1. Draw up an agenda for a meeting called to make the first draft for a budget for a health centre.
2. Decide who should attend this meeting.
3. Decide what documents should be provided for those who are to attend the meeting.

EXERCISE C.5 Preparing a meeting

Individual or Sub-group

1. Draw up an agenda for a meeting called to finalize the budget for a health centre.
2. Decide who should attend this meeting.
3. Decide what documents should be provided for those who are to attend the meeting.

EXERCISE C.6 Conducting a meeting

Objective (Exercises C.6 and C.7): To deal with some problems that arise during the course of a meeting.

Individual or Sub-group

You are the chairman of a committee. How would you deal with the following situations?

1. A non-urgent and rather minor matter has been rather heatedly discussed for more than 20 minutes and members are still deeply divided on the issue.

2. A member of the committee refuses to yield the floor to another member who wants to speak to the subject.

3. A member of the committee is habitually late and often wants to re-open an item on the agenda which was settled before he arrived.

4. The minutes as read by the secretary are disputed by one member. The others have no opinion. The secretary maintains that his record is correct and has his rough notes with him to support this contention.

5. A member of the committee talks at great length about a subject that has nothing to do with the question being discussed.

6. An important item is up for discussion but it becomes clear that only one member has prepared for the discussion although a paper was circulated to all members about it.

EXERCISE C.7 Conducting a meeting

Objective: To enable a health worker who may be the secretary of a meeting to think through some of the problems that may arise.

Individual or Sub-group

You are the secretary of a committee. How would you deal with the following if indeed it is your responsibility:

1. A motion has been proposed and seconded and discussed but no clear decision has been made before the chairman moves on to the next item on the agenda.

2. In your opinion one of the members of the committee is talking too much.

3. A decision has been taken to adopt a motion but the motion has been modified so much in discussion that you are no longer clear as to exactly what the motion is.

4. A member disputes your record of a decision taken at the previous meeting

   A. Unfortunately you have already destroyed the notes you made at the time of that meeting, or

   B. You are embarrassed because your notes on this point were very incomplete. However, before writing the minutes you had checked with the chairman as to what his recollection of the decision was).

TRAINING

EXERCISE C.8 Correcting performance deficiences by training

Objective: To distinguish performance deficiences that can be corrected by training from those that can be corrected by other measures.

Individual or Sub-group

1. Which of the performance deficiences in the following case study can be corrected by training?

2. Outline suitable training programmes to correct the deficiences.

Tom is a junior health worker in a rural health centre. Several times recently he has been late for work, and in addition you have noticed that he frequently does not get his assignments completed in time.

For instance, the other morning he was supposed to be taking and charting temperatures and pulse rates in the children waiting to be seen in the outpatients. Although only 20 children were present, he still had not finished by 11 a.m.

Two days ago you happened to be passing by when Tom was using a syringe to take blood from a patient. He was trying to do this without using a tourniquet on the arm and you noticed that he had to make several attempts before getting into a suitable vein.

One of the more senior health workers offered to help but he refused any help saying, "I can do it as well as you. Can't you see this patient has difficult veins." At noon the senior health worker reported that Tom, who was supposed to be on duty, could not be found anywhere.

Later Tom was seen coming out of the staff changing rooms and when questioned he said he had been taking a shower and didn't the questioner know that it was important for health workers to be clean.

EXERCISE C.9 Planning training for specific deficiencies

Objective: To design training for specific problems identified by a supervisor

Individual or Sub-group

1. If you feel training is the proper response, outline training plans to meet the following situations:

> A health worker in one of the clinics you supervise has incorrectly diagnosed several cases of tinea versicolor as leprosy.
>
> A health worker in charge of one of the more isolated clinics brings his motorcyle in for repairs more frequently than average. The mechanic has reported that many of the breakdowns are due to lack of proper maintenance.

Several of your health workers have asked you to give them more teaching on dermatology. Skin problems are very common in the clinics. At present they are able to diagnose scabies, tinea versicolor, ringworm, vitiligo, the skin manifestations of onchocerciasis which is common in your district. Your drug budget is limited and the only medicines available in the clinics for treating skin disease are sulfur ointment and Whitfield's ointment.

EXERCISE C.10

Objective: Emphasize the principles of learning.

Individual

1. Write a brief description of two or three particularly effective learning experiences you have had.

(These need not have taken place in school or a training centre).

2. Try to identify what it was that made these experiences so effective.

Group

Members of a group are asked to relate learning experiences as above, and the group leader draws out from these experiences examples to illustrate principles of learning.

EXERCISE C.11

Objective: To relate teaching methods to different objectives and circumstances

Individual or Sub-group

1. Make a list of all the methods of teaching you can think of.

2. Put your methods into groups according to whether they are most suitable for teaching facts, changing attitudes or helping people to acquire skills.

3. Identify which of the methods are suitable or most suitable for teaching individuals, teaching small groups, or teaching large groups.

4. Which methods help you to learn best?

5. Which methods do you prefer to use as a teacher?

EXERCISE C.12 Planning a short course

Objective: To prepare an outline plan for a two-day refresher course.

Group

Each of the discussants will present one of the following topics:

1. Give a description of performance deficiencies noted during a clinic visit, for which training is the right remedy.

2. Suggest training objectives which must be reached if the deficiencies are to be corrected.

3. Plan a two-day programme, indicating the methods of teaching to be used to reach each objective..

4. List the materials which will be required and the time it is likely to take to reach each objective.

5. Describe the methods you would use to test whether each objective has been reached.

Discussion should be encouraged on each presentation as it proceeds.

Final discussion: To what extent should those who are to receive the refresher course take part in planning it.

Chapter 4

CONTROLLING AND ASSESSING THE WORK

EXERCISE D.1 A case study on conflict

Objective: To investigate the causes of conflicts.

Group

The wrong X-ray:

You are a visitor at a district health centre. One morning you are in the administrator's office when a doctor rushed angrily into the office shouting a loud complaint about the poor job that the X-ray technician was doing.

The doctor held up an X-ray film that showed a frontal view of a patient's skull. He said it should have been a side-view of the skull. The child had had an accident and he suspected a fracture.

The administrator accepted the complaint as a matter of fact and said he would look into it. He asked the doctor what sort of an order had been given to the X-ray technician and the doctor said he did not know.

The administrator said "Let's go down to the X-ray department at once and get this matter settled".

You went with him and the doctor to the X-ray department and the administrator asked the technician to show him the order for the X-ray. The technician produced a small piece of paper torn off an envelope. Written on it was the simple instruction, "X-ray this child's head". There was no signature to show who had written the order.

1. What do you think of the administrator's approach to this problem?

2. What further action should he take?

3. Who was at fault in this case?

4. How could the repetition of problems of this sort be prevented?

5. What other departments in the health facility might have similar problems and what action could you take to prevent them?

EXERCISE D.2

Objective: To consider further methods of dealing with conflict

Group

You stayed at a certain health facility over the week-end and on Monday morning you are told that on the previous day some visitors had insisted on staying in the surgical ward long after visiting hours. The health worker on duty had become very angry with the visitors and in the end had shouted at them to get out. He even threatened to call the police.

The supervisor of the health facility, who had been away for the week-end, was not told of this incident. You were in his office when a local offical came to make a complaint. He said that the visitors were friends of his and he thought the health worker should be punished.

The supervisor apologized profusely to the official and even wrote a note of apology for him to take to his friends. This seemed to satisfy the official.

You ask the supervisor if he planned to take any disciplinary action against the health worker, and he said no and that he would not raise the matter. However, by the following morning the health worker heard from friends in the town of the action taken by the supervisor in apologizing. He felt very strongly that the visitors had been at fault and was angry at what the supervisor had done.

1. What do you think of the supervisor's approach to this problem?

2. What might have been a better approach?

3. What action should the supervisor now take when he hears the health worker's feelings about the whole incident?

EXERCISE D.3 A case study in resolving conflicts

Objective: To learn methods of resolving conflicts

Group

A health centre team leader called a meeting to consider complaints that had been made about the way pregnant women were being treated at the health centre since the arrival of two recently qualified midwives.

The women who had made the complaints were not present but were represented by the health visitor to whom they had spoken at home. The midwives directly concerned were not present either. They were represented by the midwife-in-charge. No other staff were present.

The health visitor spoke first and said that several women had complained that the new midwives were too young and too bossy. "They are young enough to be our daughters" said one woman. "But they order us about as if we were their children" said another. "They take so long with each case that the clinic does not finish until after dark" said a third. "They take blood from us but refuse to give us injections as the old midwives did" was another woman's complaint.

The health visitor said she thought the young midwives were both undisciplined and incompetent, and that the older midwives (one of whom was her husband's sister) ought not to have been retired.

The senior midwife responded by saying that in the last two months the number of women coming to antenatal clinics had doubled; partly as a result of a health education program in the village but also partly because the new midwives were more popular with many of the poorer women. The increased numbers at the clinic had meant that some of the more educated women were being asked to wait longer to be seen and they did not like this. The new midwives were more conscientious in examining women antenatally, and this was one reason why the clinic was taking longer.

She agreed that they lacked experience and because of this had taken responsibility for prescribing treatment herself. The senior midwife said she herself had stopped the practice of giving injections of vitamin B since tablets were cheaper and that she no longer gave intramuscular iron because the old stock had been used up and the health centre supervisor had refused to order any more - for some reason she did not understand. She finally said that discipline of the midwives was her business and would the health visitor please keep out of it.

1. Was it wise for the supervisor to have invited only the health visitor and the senior midwife to this meeting?

2. Shouldn't the women who made the complaint and the midwives themselves be present?

3. What conflicts are inherent in this situation?

4. What can you see as causes of the conflict?

5. What steps can the supervisor now take to reduce these conflicts and to try to repair the damage already done by them?

6. What other, possibly more effective, approaches to these conflicts might the supervisor have taken?

Part III

Managing Resources

INTRODUCTION

Management is part of the daily routine of every kind of organization.

In the preceding chapters management is discussed in terms of concepts. But concepts, like ideas, must be turned into action.

First, one must be clear about objectives. All other aspects of management must be seen in relation to objectives.

The performance of daily activities requires that many elements - people, time, equipment, material, drugs, etc. - are brought together to achieve an objective, to carry out the work.

The successful running of activities and the achievement of objectives depend upon the application of knowledge and skills to a problem, using all resources in the most efficient way. Efficiency depends upon how these different elements are managed. If there is no more ointment because the person responsible did not order it in time, if the patients hang around the treatment room disturbing the work because of poor organization in the waiting room, if there is no water because the pump has broken down and no steps have been taken to repair it, then the work cannot be carried out properly. In terms of management concepts, limitations will prevent the full attainment of the goal.

Caring about these details will make sure that when knowledge and skills are applied to a problem they will be supported with resources that function and a system of organization that enables the work to run smoothly.

Chapter 1: Managing equipment

LEARNING OBJECTIVES

After studying this chapter and performing the exercises on pages 228 - 231, the health worker will be able to:

- explain the difference between the two main types of equipment: expendable and non-expendable
- name the four main procedures in the management of equipment
- complete an order-form (requisition form) after using the correct catalogue and making a cost-estimate;
- keep a stock record;
- record the necessary details when issuing equipment;
- use an inspection check-list for the control of expendable equipment and maintenance of non-expendable equipment; and
- explain the value and uses of accurate equipment records.

CHAPTER 1

MANAGING EQUIPMENT

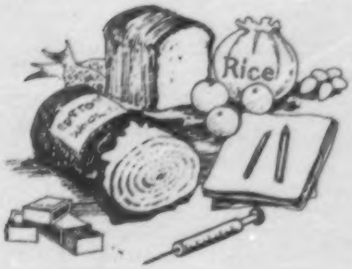
The two main types of material equipment are known as:

Expendable (also called consumable or recurrent), and

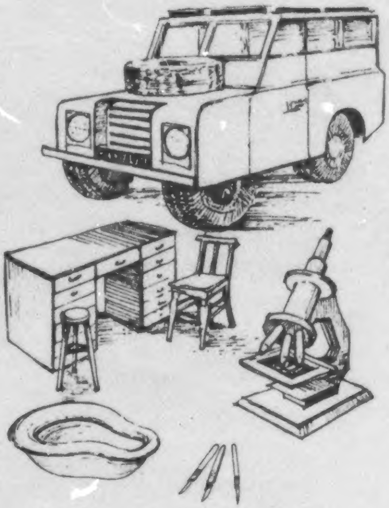
Non-expendable (also called capital or non-recurrent)

Expendable equipment is equipment that is used within a short time, e.g., matches, cotton wool, food, laboratory stains, paper, disposable syringes.

Non-expendable equipment is equipment that lasts for several years and needs care and maintenance, e.g., microscopes, scalpels, furniture, weighing scales, vehicles, bedpans.



Expendable equipment

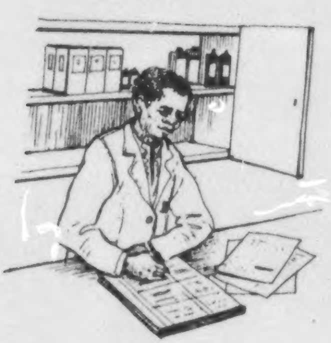


Non-expendable equipment

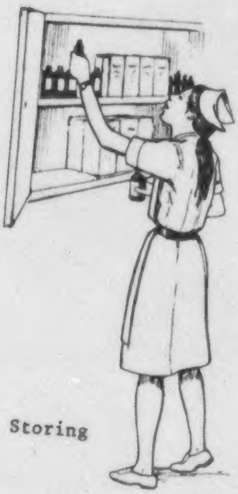
The four main procedures in the management of equipment are:

Ordering: (obtaining equipment from stores or shops);

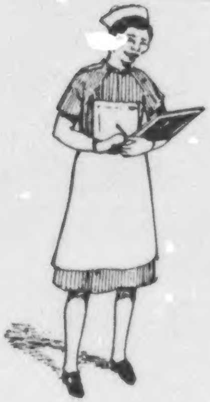
Storing	(recording, labelling and holding equipment in a stock or store-room);
Issuing	(giving, labelling and holding equipment in a stock or store-room);
Controlling/ Maintaining	(Controlling expendable equipment, maintaining and repairing non-expendable equipment).



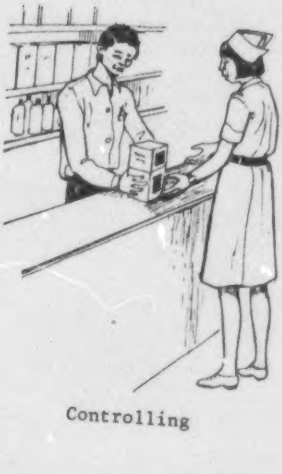
Ordering



Storing



Issuing



Controlling

1.1 ORDERING EQUIPMENT

Only some health workers (usually senior staff) are authorized to order equipment:

To order equipment the following skills are needed:

(a) To list requirements, from a knowledge of past use and estimates of present use.

(b) To balance requirements with available resources and make cost-estimates.

(c) To use a catalogue.

(d) To complete an order-form or requisition form.

(a) Making lists

Make several lists according to the expected place of purchase:

e.g., matches are bought from a local shop
thermometers are bought from a pharmacy or medical store
paper is bought from the government office or a stationer.

For each item write down the exact type required

e.g., torch battery, 1.5 volts
syringe 5cc luer fitting.

Estimate the quantity of each item. To do this it is necessary to know:

- how frequently the order can be placed (purchasing interval)

  e.g., kerosene - local purchase, a weekly order;
  thermometers - from a distant store - order every 6 months

- how much is normally used during the purchasing interval

  e.g., 5 rolls of cotton wool per month for a treatment room

- is the amount used reasonable? Does it seem extravagant or more than is needed?

The quantity of an item used depends on the number of people using it and can be estimated from experience or by asking experienced persons. Since resources are always limited it is important that consumable items be used economically.

(b) Balancing requirements and resources

Health services all over the world are short of resources. Therefore, requirements must always be balanced against resources. (Balance what is needed against the money available to buy it or the people available to make it). Sometimes one can obtain more resources, e.g. if the budget is increased or a new programme is started. Usually, requirements must be reduced until they correspond with the funds available to purchase them.

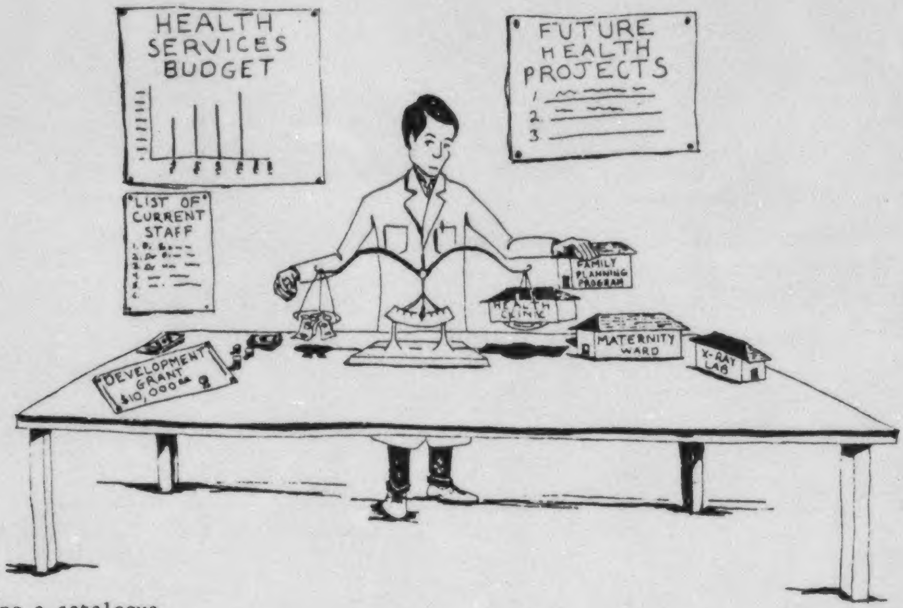
For this, a cost-estimate must be made before completing the order form.

Making a cost-estimate

Draw a columned sheet of paper and list the items, quantity, price per unit and total price.

Items	Quantity	Price per Unit	Total Price $
Thermometers	20	$ 2.50	50.00
Sphygmomanometers	2	35.00	70.00
Sterilizer	1	20.00	20.00
Syringes 5 cc	10	2.50	25.00
Syringes 2 cc	40	1.75	70.00
Needles, size 10	200	0.20	40.00
Total Price			$ 275.00

Suppose that only $220 is available; then revise the list, reducing or omitting items, until the total matches this amount.


HEALTH SERVICES BUDGET
FUTURE HEALTH PROJECTS
1.
2.
3.
LIST OF CURRENT STAFF
FAMILY PLANNING PROGRAM
HEALTH CLINIC
MATERNITY WARD
X-RAY LAB
DEVELOPMENT GRANT $10,000.00

(c) Using a catalogue

A catalogue is a book that contains a list of articles available for purchase from a certain place.

A catalogue is used whenever things are purchased at a distance. A catalogue may be published by a government store or by a private firm, manufacturer or shop.

Equipment for rural health services is normally obtained through a catalogue order because shops in rural areas are small and do not contain the type of equipment required. Also, catalogue-ordering is used when purchasing is done through government stores or government departments.

A disadvantage of catalogue-purchasing is that the purchaser does not see the articles he is buying. Often there are several types of the same item, e.g., there may be six different kinds of scalpels or forceps. Or articles may be in different materials, e.g., kidney dishes in stainless steel, enamel or plastic. Therefore the catalogue must be read with great care and the exact item number, description and price carefully identified.

(d) Completing an order-form or requisition form

An order-form or requisition form is usually supplied together with the catalogue. Each store or firm purblishing a catalogue has its own particular order-form.

An order-form has a column for each of the following: item number, name of article, quantity required, price per unit, total price.

An example of an order-form is shown below.

Item No.	Name of article	Type	Unit	Quantity	Price per Unit	Total

I.2 STORING EQUIPMENT

Equipment is stored in two kinds of places.

1) A main store or reserve store where stocks are kept but not used.

2) The place of use, after issue.

To store equipment the following skills are necessary:

(a) To record the reception of new articles and to record the issue of articles.

(b) To keep a stock-book or stock-ledger in balance.

(a) Receiving new articles or equipment into store

A new article is usually delivered with a piece of paper, either an invoice if not yet paid for or a delivery note if payment has been made (or sometimes both papers). (An invoice is a statement of the cost of the article).

Invoices and delivery notes must be placed in separate files kept for this purpose and labelled either 'invoices' or 'delivery notes'.

The receipt of the article is then entered in the stock-book or ledger. Usually there is a page for each item stocked.

The record is in columns and includes:

Date the article was received,
Item number of article (from the catalogue) and the place of purchase,
Number of the invoice or the statement of account, and
Quantity of the article

Usually there are two ledgers: one for expendable and one for non-expendable equipment.

(b) Keeping a ledger balance

Each item on a ledger is recorded on a separate page. Each time an item is received it is added to the total in stock. Each time an item is issued it is subtracted from the total stock. The resulting number is the balance in stock.

Example:

Date	Item	Received from	Invoice	No. received	No. issued	Balance in stock
	x			144	117	27
	y			40	8	32
	z			32	9	23

1.3 ISSUING EQUIPMENT

A health unit may have several sections, e.g., a maternity ward, a treatment room, a laboratory, a mobile clinic. The health worker in charge of each section of work is responsible for the equipment under his care. Thus, a maternity nurse is responsible for weighing-scales, syringes and vaccines, record cards, delivery kits and other apparatus. A laboratory worker is responsible for the microscope, test-tubes, glass-slides and stains.

After equipment has been ordered, and then received and recorded in the stock-book or ledger, it is issued for use when it is needed.

There are three paper procedures used in issuing equipment:

(a) A ledger record, i.e., writing the issue in the stock ledger.

(b) Issuing a voucher to be signed.

(c) An inventory record of the section receiving the equipment and using it.

(a) Ledger record

When an issue is written in the stock ledger, the balance remaining in stock can be found by subtracting the amount issued from the total in stock. When the balance is getting low, it is time to order new equipment.

It is important to record issues in the stock ledger and to calculate the balance of stock remaining. This is how to find out when to order more stock.

(b) Issue voucher

There is an official form on which are recorded:

Date of issue;
What is issued and how much, and its page number in the ledger;
Where it is to be used (section of health centre);
Who is responsible (usually head of section);
Signature of person responsible for its use.

The person who signs the issue voucher takes responsibility for the care of the apparatus or equipment. Issue vouchers must be filed and kept in the store. Duplicate copies are given to the department that receives the equipment.

(c) Inventory

An inventory is a list of items that are kept at a certain place. Each section of a health unit keeps an inventory of its non-expendable equipment.

New equipment issued must be added to the inventory. This inventory is used to check stocks of equipment in use, at intervals.

1.4 CONTROLLING AND MAINTAINING EQUIPMENT

Expendable equipment needs to be controlled to avoid wastage.

Non-expendable equipment needs to be maintained, i.e., kept in good working condition.

To control and maintain equipment the following skills are needed:

(a) To convince staff of the importance of cleaning, inspecting and keeping equipment in good order; of reporting defects immediately; and of returning equipment to its correct place after use.

(b) To use an inspection check-list and inspection schedule.

(c) To detect discrepancies and explain them.

(a) There is no easy way to convince staff of the need to clean equipment and keep it in good condition. The best way is for the supervisor (health-worker manager) to set a good example and to emphasize that equipment must be cared for:

- to prevent transmission of infection, e.g., by a dirty instrument;
- to keep it in good condition (dirty or damp equipment deteriorates more rapidly than equipment that is kept clean and dry); and
- to economize.

One works economically by making the best use of equipment and supplies. Well-cared-for equipment last longer; material used correctly is not wasted. (Examples of wasting resources are: using cotton wool for cleaning purposes, not turning the lamp down or turning off the light when it is not needed). Equipment and material should be returned clean and in good order to its correct place after use. In this way equipment lasts longer and has to be replaced less often.

(b) Inspection check-list

Equipment in a department is inspected by seeing what is present and checking it against the inventory. How often equipment should be checked depends on whether it is consumable or longlasting and whether it is liable to break down.

Consumable items need to be checked often to avoid wastage and extravagance. Longlasting equipment such as beds, tables and chairs need to be checked only once a year. Equipment and machinery that is liable to break down (e.g. sphygmomanometers, electric sterilizers, vehicles) need regular and more frequent check-ups.

Inspection is uninteresting work and is, therefore, often forgotten or overlooked. As a reminder to the health worker manager, it is useful to have special set times for inspection set out on an inspection schedule.

(c) Detecting and interpreting discrepancies

A 'discrepancy' is a difference between what is reported and what is found, e.g., a difference between the amount of something actually used and the amount normally expected to be used, or a difference between the equipment entered on the inventory list and the equipment actually present.

Example 1

The amount of carbol fuschin stain in a laboratory is the same today as it was 3 months ago, and there is no record of any having been supplied since that time. This means the carbol fuschin has not been used.

It is normally expected that a laboratory in a busy health centre would use carbol fuschin to stain slides for acid-fast bacilli.

This is a discrepancy in which less has been used than expected.

Explanation

In investigating this discrepancy many reasons might be found.

Perhaps no leprosy or tuberculosis patients have been sent for examination. If not why not?

Or the laboratory may have no acid alcohol and therefore could not use the carbol fuschin, as both are needed in the stain for acid-fast bacilli.

There may be a new laboratory assistant who does not know how to perform the stain and is afraid to say so.

Usually, more is used than is expected to be used.

Example 2

Twenty 2 cc non-disposable syringes were issued to a mobile clinic. After one month only 5 remain. This is a discrepancy.

Explanation

Perhaps the syringes were badly packed in a box and many were broken in transport. Perhaps they were left behind in a distant clinic.

Or some health workers may have been careless and have broken many syringes.

Or the syringes may have been stolen.

FIND THE CAUSE OF DISCREPANCIES

AND TAKE APPROPRIATE

ACTION

THE VALUE AND USE OF EQUIPMENT RECORDS

Good management takes care of equipment by:

- instructing and motivating staff to feel responsible for the equipment they use,
- ordering supplies when needed,
- storing them safely, and
- controlling their use.

Why is it important to keep accurate equipment records? Why take the trouble to keep requisition books, stock ledgers, issue vouchers and inventories? Is all this paperwork a waste of time and energy?

There are several good reasons for doing this paperwork.

1. Previous order-records make subsequent orders, next month or next year, much quicker and easier. The suppliers' addresses, item numbers, normal quantities required, etc. are identified.

2. The balance in the stock ledger gives warning of when to order more supplies. This prevents long periods without necessary equipment. Being "out of stock" of equipment reduces the usefulness of the health service.

3. Issue vouchers encourage workers to take responsibility for equipment and help to identify who is accountable for loss or breakage.

4. Inventories assist in the rapid checking of equipment in use and help to detect discrepancies, wastage, extravagance and theft.

In summary, accurate records save time. Records contribute to economy, efficiency and smooth functioning of the health service.

KEEP ACCURATE EQUIPMENT RECORDS

Chapter 2: Managing drugs

LEARNING OBJECTIVES

After studying this chapter and performing the exercises on page 232 the health worker will be able to:

Act responsibly and set a good example to staff members regarding drugs;

Prevent drug wastage;

Adapt a standard drug list for a health unit;

Use a decision-procedure to make a choice between drugs;

On the basis of current use of drugs, estimate drug quantities required;

Order and stock drugs;

Issue drugs;

Establish a method to prevent life-saving drugs from being out of stock;

Identify and investigate discrepancies in drug usage;

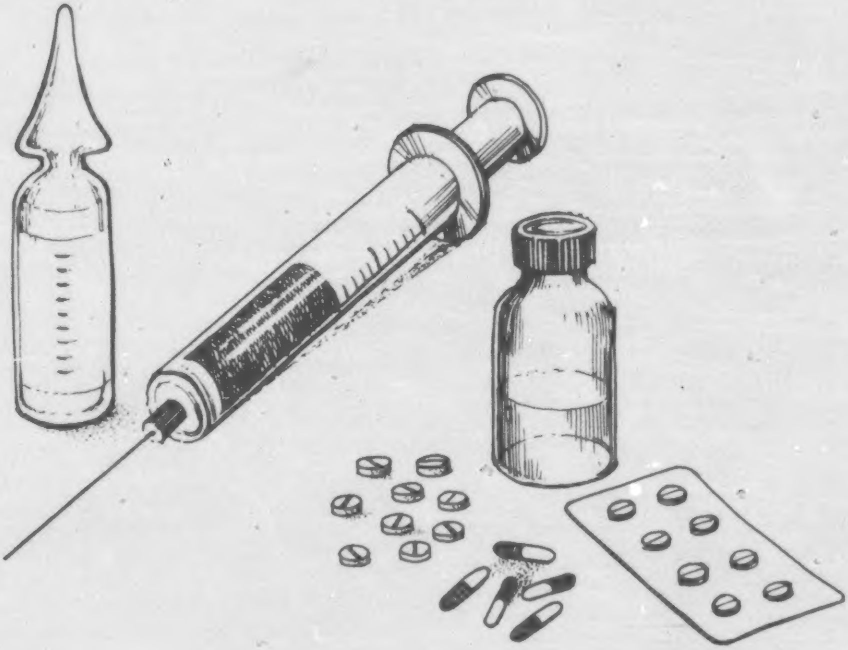
Pre-package out-patient drugs.

CHAPTER 2

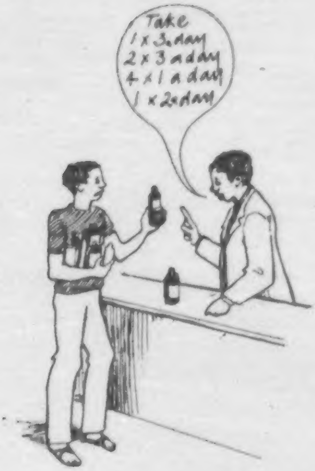
MANAGING DRUGS

The use of drugs is only one aspect of a health service but it is one of the most important.

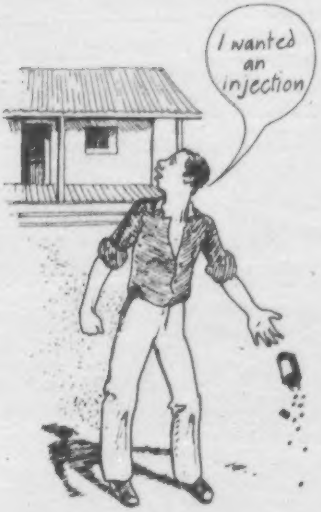
Drugs are important:	The management of the drug supply in the health unit is one of the most responsible functions of the health worker.
Drugs are powerful:	They must be used with skill, knowledge and accuracy; otherwise they are dangerous.
Drugs are expensive:	Wasting or misusing drugs may cause a shortage of supply, with the result that some patients cannot be treated properly.



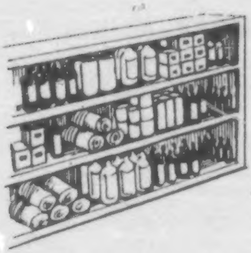
Methods of giving drugs


Take
1 x 3 a day
2 x 3 a day
4 x 1 a day
1 x 2 a day

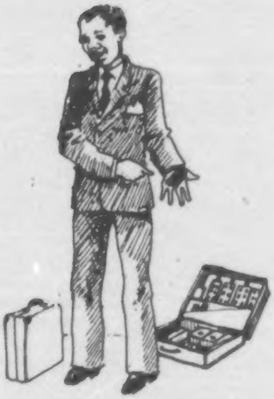
Overprescribing


I wanted an injection

Patient's demand



Overstocking



Expensive brand names

Common causes of drug wastage

2.1 PURPOSE OF DRUG MANAGEMENT

The purpose of management of drugs is to use drugs wisely and avoid wasting drugs, and therefore to have enough for patients' needs.

Common causes of wasting drugs and money

1. Using too many different drugs on one patient.
2. Using expensive, brand-named drugs when cheap or standard drugs are equally effective.
3. Using drugs without a proper diagnosis, "just to try it".
4. Using a larger dose than necessary.
5. Giving drugs to patients who do not believe in them and who throw them away, or who forget to take them.
6. Ordering more drugs than are needed, so that some drugs become "expired" on the shelf.
7. Not caring for the refrigerator, so that vaccines are no longer effective.
8. Exposing drugs to damp, heat or light.
9. Giving out (issuing from store) too many drugs at one time so that they are stolen, or used extravagantly.

Educating staff in the use of drugs

Drugs are important, powerful and expensive. For these reasons, all health workers using drugs should be well-informed about them and should develop a mature and responsible attitude towards their use.

A health-worker manager can educate staff about drugs in the following ways:

1. Put one or more copies of a simple book on pharmacology in the library.
2. Make notes on the common drugs used, explaining their uses and side-effects. Give copies of these notes to all staff.
3. Set out the correct doses of common drugs on wall boards.
4. Hold staff meetings to discuss causes of drug wastage.
5. Inform all staff about the cost of various drugs.
6. Make a lecture/discussion programme and discuss one drug each week in the staff meeting.

Educating patients about drugs

Very often patients take drugs in a wrong way. They either reduce the dose to make the treatment last longer or increase it hoping for a quicker cure. They take the drugs at wrong times or forget a dose. Patients on long courses of treatment often stop them too soon.

They do this because they do not understand the action of drugs in the body. As a result they are sometimes not cured and the drug is wasted.

Health workers should explain very carefully to patients how to take their drugs.

Explaining to patients the use of drugs

They should also explain in a simple way why a drug must be taken in a particular way. Thus, patients could learn that:

1. Each drug has a particular action. A drug used for one condition will not help another.

2. The size of the dose is very important. If it is too little it acts too weakly to cure the condition; if it is too much it may poison the patient. The doses for children are smaller than those for adults.

3. Treatment must be regular. This means that the desired level of the drug in the body is maintained.

4. The whole course of treatment must be completed. If it is not, the patient may relapse into an even more serious condition than before.

5. Drugs must be kept out of reach of small children. They may eat them as sweets and poison themselves.

Special education. Patients with tuberculosis and leprosy who have to take drugs for many months need a great deal of explanation and encouragement. They must continue to take tablets even when they feel better, in case the disease becomes active again.

2.2 PREPARING A STANDARD DRUG LIST

Most health units or sections of a service have a standard list of the commonly used drugs. Thus, a maternity-ward list usually includes an analgesic (e.g., pethidine) and a uterine contractant (e.g., ergometrine); and a children's clinic list includes a range of vaccines. An example of a standard list for a small dispensary or aid-post is given at the end of this chapter.

The standard list is usually prepared by the supervisor or a medical officer and as far as possible should be selected from a list of essential drugs established at the national level.[a]

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[a] This subject is discussed in two reports of a WHO Expert Committee on the Selection of Essential Drugs: The selection of essential drugs. WHO Technical Report Series, Nos 615 and 641. (1977 and 1979).

Health work and knowledge are constantly changing and new drugs appear very often. As a result 'standard lists' are often out of date or otherwise inadequate.

Standard drug lists may need to be changed for the following reasons:

1. Diseases are being treated that were not previously treated (e.g., patients with tuberculosis and leprosy are now treated as outpatients rather than in special hospitals).

2. New drugs have become available.

3. The budget for drugs is no longer enough to purchase all the listed drugs and cheaper alternatives are needed.

How to modify a standard drug list

To do this, one needs to know:

1. Which diseases and health problems are expected to be treated in the unit;

2. Which drugs are available or could be used for these diseases and health problems;

3. The effectiveness, convenience, toxicity and cost of alternative drugs, for comparison;

4. How to decide between alternatives.

Procedure for modifying a standard drug list

1. Go through the list of conditions treated in the unit in the past six months.

   Are there any conditions for which no drug is available on the list? If so, add a drug to the list and suggest it to the supervisor.

2. Go through your standard list of drugs and see if there are any duplications i.e., two or more drugs serving the same purpose, e.g., aspirin, Aspro, Disprin, sodium salicylate, codein co. and paracetamol; or four or five different brands of antihistamine. If so, choose one drug for each purpose and remove the other drugs from the list.

3. Are there any old-fashioned drugs that are never used, e.g., castor oil, chenopodium, arsenical compounds? Sometimes such drugs remain on the shelf or on the list long after they have been replaced by better modern drugs.

   Remove old-fashioned and unused drugs from the list and from the shelves.

   If it is difficult to decide between several drugs, then use the following decision-making procedure:

Deciding between drugs to be included in a standard list

Every decision is based on a comparison between two or more drugs.

First, on a table such as the form outline below, make a list of what is needed (standard requirement).

Then, list the characteristics of each drug that might be included.

Compare each one with the standard requirement.

Which one best meets the requirements?

	Standard Requirements List	Drugs		
		x	y	z
1)				
2)				
3)				

Example 1   *Required: a mild analgesic for outpatient use.*

	Standard Requirements List	*Drugs*	
		Drug "A"	*Drug "B"*
1)	*Effective*	+	+
2)	*Few adverse effects*	*Occasional gastric bleeding*	-
3)	*Non-toxic*	*Low toxicity*	*More toxic*
4)	*Cheap*	*Very cheap*	*Expensive*

Compare and then choose.

Example 2 *A drug for treating large numbers of patients with hookworm infestation in an endemic area.*

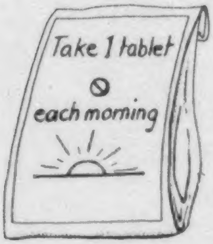
		Drugs	
Standard Requirements List	*bephenium*	*tetrachlorethylene*	*levamisole*
1) Effective	*++*	*++*	*+-*
2) Short course	*One dose*	*One dose*	*Two doses*
3) Non-toxic		*Can cause liver damage*	
4) Cheap	*Expensive*	*Very cheap*	*Moderate price*
5) Simple to administer	*Oral*	*Advised to take on empty stomach*	*Oral*

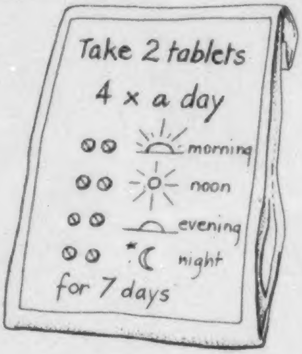
Choosing

When large numbers of patients are being treated for a disease in an endemic area it is important to choose the least expensive drug that is effective, safe and simple to give. Drugs with a similar effect may have very different prices.

If hookworm is uncommon, and only a few patients are being treated, bephenium could be used despite its high cost.

CHOOSE DRUGS CAREFULLY





(The symbols used in these illustrations may need to be adapted for different countries)

An example of a standard drug list for a rural treatment centre[1]

EXTERNAL

1. Insecticides, antiseptics, soap

   gamma benzene hexachloride (lindane), tincture of iodine, cetrimodium bromide, soap

   benzyl benzoate emulsion, benzoic acid + salicylic acid (whitfields ointment), zinc oxide ointment, Vaseline.

INTERNAL

2. Antibacterial drugs

   Benzylpenicillin (for injection), ampicillin anhydrous, tetracycline hydrochloride capsules or chloramphenicol depending on local need, sulfadimidine tabs.

3. Anti-parasitic drugs

   chloroquine phosphate or sulfate tablets, mebendazole, piperazine citrate or adipate, metronidazole

4. Antihistamine

   One antihistamine e.g. promethazine hydrochloride (tablets, syrup) or chlorphenamine

5. Analgesics/Local anaesthetic

   acetylesalicylic acid (aspirin) or paracetamol, lidocaine hydrochloride

6. Minerals and Vitamins

   ferrous sulfate tabs., folic acid tabs., vitamins (according to local needs)

7. Drugs acting on respiratory tract

   codeine phosphate, aminophylline tablets

8. Drugs acting on the alimentary tract

   aluminium hydroxide, oral rehydration salts, senna, belladonna tincture

9. Drugs used for mental disorders

   chlorpromazine tabs., phenobarbital tabs. antiepileptic or anticonvulsant

10. Drugs for the eye

    tetracycline eye ointment

11. Drugs used in obstetrics

    ergometrine maleate tablets

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[1] See also, The Primary Health Worker, working guide, guidelines for training, guidelines for adaptation, Revised edition, WHO, 1980, pp. 248-252.

12. Drugs used under supervision for patients referred from hospital with doctor's prescription for tuberculosis and leprosy

isoniazid, streptomycin injection, dapsone.

In some cases it may be necessary to stock a wider range of drugs for patients referred from hospital with a doctor's prescription such as digoxin, phenytoin, reserpine.

Similarly, some vaccines and sera may need to be stocked.

2.3 ESTIMATING DRUG REQUIREMENTS: ORDERING AND STOCKING DRUGS

Ordering more drugs than needed results in wastage, because drugs may remain on a shelf after the expiry date. Ordering less drugs than needed results in shortage, so that patients suffer because they cannot be treated.

It is important therefore to estimate approximately how much is needed of each drug. This may be done either on the basis of previous experience in the health centre or by calculation.

Formula for calculation:

Total dose of average course of drug x Usual number of patients treated with that drug within the purchasing interval

The purchasing interval is the time between the arrivals of drug orders, usually 3 or 6 months.

The number of patients treated with the drug or suffering from the disease for which the drug is used is obtained by counting from either clinic records or registers.

Example

How much aspirin is needed?

Suppose ten patients a day are prescribed aspirin (on an average).

The average course of aspirin is 2 tablets three times daily, i.e., 6 tablets

The purchasing interval is three months (about 90 days).

Apply the formula:

Aspirin needed = Total dose of average course of aspirin x Number of patients treated with aspirin in the purchasing interval

From the above facts: 6 tablets x 10 patients daily x 90

i.e., 60 x 90

= 5 400 tablets of aspirin are needed every three months.

If there are 1 000 tablets in a bottle, then order 5 or 6 bottles of tablets every three months.

When estimates exceed the drug budget

Very often a disease is so common, or a drug is so expensive, that one disease or one drug would use up the whole budget.

This is often the case, e.g., with gonorrhoea or schistosomiasis in places where these diseases are very common. If all patients with gonorrhoea are treated with a full course of penicillin (4.8 million units per patient) there could be no penicillin for any other disease and no funds to buy any other drug.

How can such a problem be solved?

This is a very difficult management problem. It forces a health worker to choose, i.e., to decide, which patients and which conditions to treat.

It may help in solving this problem to choose criteria for treatment. Criteria are principles or standards that things are judged by e.g., "age" might be a criterion, so that only people under a certain age would be treated. This is a criterion used in some countries for deciding which patients should be treated with a kidney-machine, because there are too few machines to treat all patients who need treatment. In some poor countries where many pregnant women suffer from anaemia a limit is set for treatment with iron and folic acid: only women with a haemoglobin level of less than 70g/1 (7g/100 ml) are given this treatment.

Other possible criteria for decision making

1. Response to treatment

Has the patient a good chance of recovery if given the treatment: e.g., some health centres treat only the acute formof gonorrhoea because it responds much better than chronic gonorrhoea?

2. Risk of recurrence

Will the patient get this disease again after being treated: e.g., if a patient is treated for schistosomiasis or hookworm, will the patient's environment be improved to prevent re-infection with the parasite?

3. Chronic conditions

Will the patient be under treatment for many years? Patients with diseases such as hypertension, epilepsy or arthritis may be under treatment for many years, and therefore one must choose very carefully which drugs to use for maintenance: e.g., methyldopa costs about ten times more than reserpine.

ORDERING DRUGS

Following the same procedures as for the equipment in section 1.1.,i.e., list requirements (use modified standard list, see 2.2 above). State exact type required.

Always order non-brand-name drugs; generally they are cheaper.

State quantity required, dosage form and strength (See 2.4 below).

Make a cost-estimate (see Chapter 1, page 149 above).

Complete the order form (requisition form).

Ordering by non-brand official drug names

Every drug has a non-brand name which is internationally agreed - the international nonproprietary (generic) name, or INN.

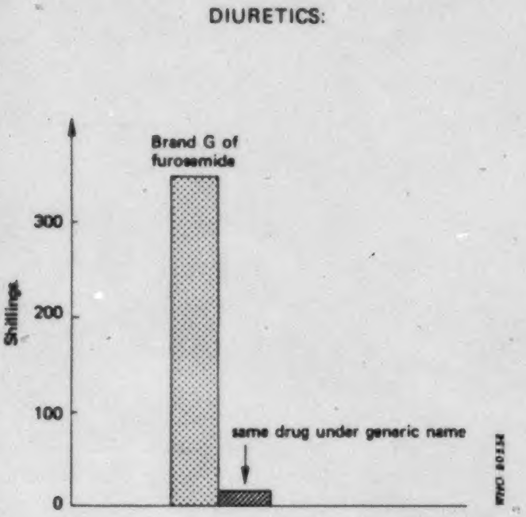
Brand names are given to drugs by manufacturers.

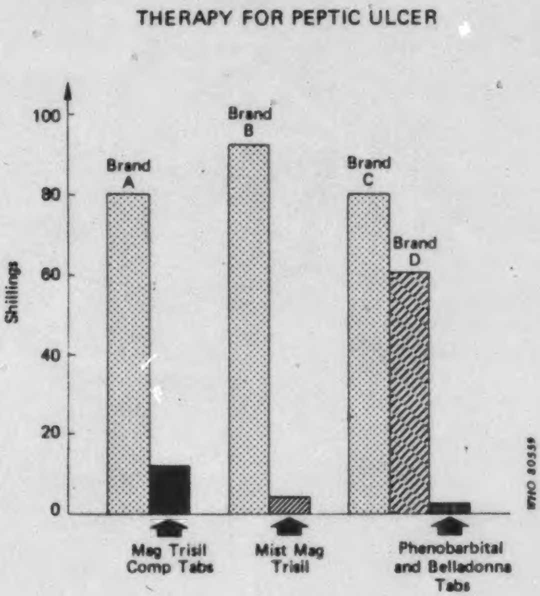
The same drug may appear under many different brand names and be sold at many different prices.

Order by the international nonproprietary names and make sure the supplier gives you the cheapest available that is effective, safe and simple to give or take.

The following example illustrates price differences between similar drugs sold under brand name and INN or generic name.

Example. *Using cheap and effective drugs*





These histograms[a] illustrate the large difference in price between drugs with similar effects bought under brand names and INN (generic) names.

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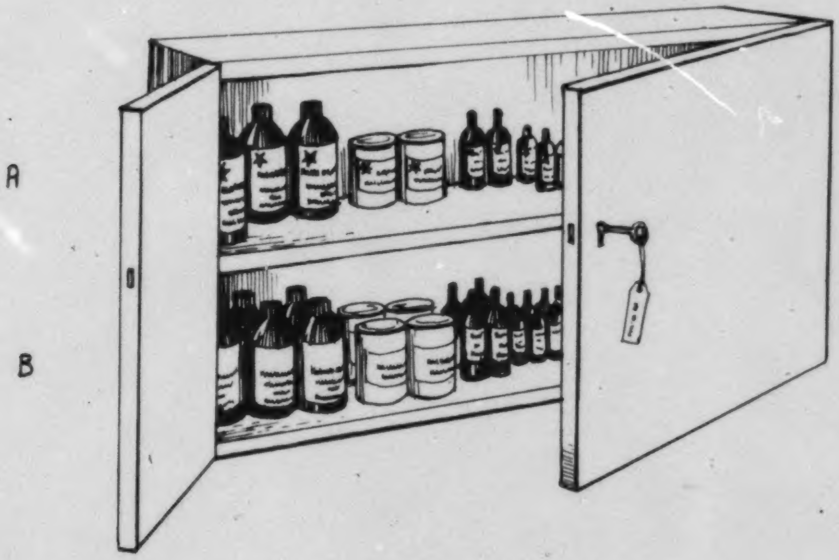
[a] Adapted from Dr N. Speight

STOCKING DRUGS

Orderly stocking is an essential part of drug management. Drugs received are recorded in a stock ledger or on stock-cards. Exactly the same procedure is used as is explained in Chapter 1.2 above.

Storing drugs

1. Most drugs must be kept dry, cool and away from light. A cupboard is best for these conditions. When possible keep tablets in air-tight tins and screw-top jars.
2. Label each bottle or tin clearly.
3. Stick a red star or similar mark on all bottles or tins with an expiry date this year. Use them first.
4. Keep dangerous drugs in a locked cupboard with a special issuing register.



A store arrangement.

Note: Shelf A to be used first. The stars show drugs which expire this year.

Stock-card system

Sometimes a stock-card system is used instead of a stock ledger. It works in the same way as a stock ledger, i.e., a balance is kept by adding items received and subtracting those issued. In the stock ledger each item has a separate page in the book, but in the stock-card system each item is written on a separate loose card.

In the case of drugs, the card relating to each particular item can be pinned to the shelf next to the drug stock to which it refers. This is a very convenient method for recording issues, particularly if issues are made frequently.

An example of a stock card recording a weekly issue of penicillin

Item: PROCAINE BENZYL PENICILLIN FORTIFIED

Date	*From or to:-*	*Received*	*Issued*	*Balance*
				10 vials
8.11	*General medical stores*	*8000 vials**		*8010*
10.11	*Outpatients' Department (OPD)*		*500 vials*	
10.11	*Maternal & Child Health Centre (MCH)*		*120*	*7390*
17.11	*OPD*		*820*	
17.11	*MCH Centre*		*130*	*6440*
24.11	*OPD*		*960*	
24.11	*MCH Centre*		*125*	*5355*

** 6-monthly order*

Study this stock card and try to answer these questions:

1. How long must 8000 vials of penicillin last?
2. How much penicillin should be issued each month, to prevent its going out of stock?
3. In the three weeks of issue recorded, how much penicillin has been issued?
4. Is the rate of consumption (drug use) a) too high, b) too low, or c) just right?
5. Of which of the two departments, MCH or OPD, would you ask questions about their penicillin use?
6. Explain how you would deal with discrepancies you have identified on this card.

2.4 ISSUING AND CONTROLLING THE USE OF DRUGS

Drugs are issued from a locked store or locked cupboard, by the person in charge of the drug stock, to the section using the drug.

Drugs are issued regularly and in known quantities. This is to permit monitoring (observation) and control of drug usage.

The frequency of drug issue depends on the circumstances and the type of drug. For example, an infrequently used drug, such as niclosamide for tapeworm, may be issued every six months. Drugs in constant use, such as acetylsalicylic acid or antibiotics, are best issued weekly or monthly. Drugs on the "dangerous drugs list" are controlled by special laws. These are issued only as prescribed for the individual patient.

Each issue is recorded on the stock card; then the balance remaining is calculated on the card and checked against what remains on the shelf.

Monitoring drug issues in this way enables the health worker to:

- notice when stocks need re-ordering,
- check drug use against patient treatment,
- identify rapidly discrepancies in drug usage,
- check changes in drug use in different sections of the health unit.

An example of an emergency drug list for a rural dispensary

A drug for severe and cerebral malaria.	*chloroquine quinine injection*
An antibiotic for severe bronchopneumonia, septicaemia and acute infections	*benzylpenicillin injection*
A safe all-purpose anticonvulsant	*paraldehyde injection*
For severe asthma and anaphylactic shock	*epinephrine (adrenaline) injection*
For advanced dehydration	*intravenous saline solution*
For post-partum haemhorrhage	*ergometrine injection*
Analgesic for severe injuries	*pethidine injection.*

Note: The drugs used for emergencies and the form in which they are used depend on local circumstances and especially on the competence of the health worker to make a clinical diagnosis and administer the drugs safely.

The A/B or double-shelf system of drug-stock control

This system can be used either for all drugs or only for the important and life-saving drugs.

1. When a new stock is received divide it into two parts that can be labelled A and B and placed separately on two shelves.

2. Put part B in a sealed plastic bag or bind it in some way, and place it on the bottom shelf. Label it "not to be used until new order is sent". This is a reminder.

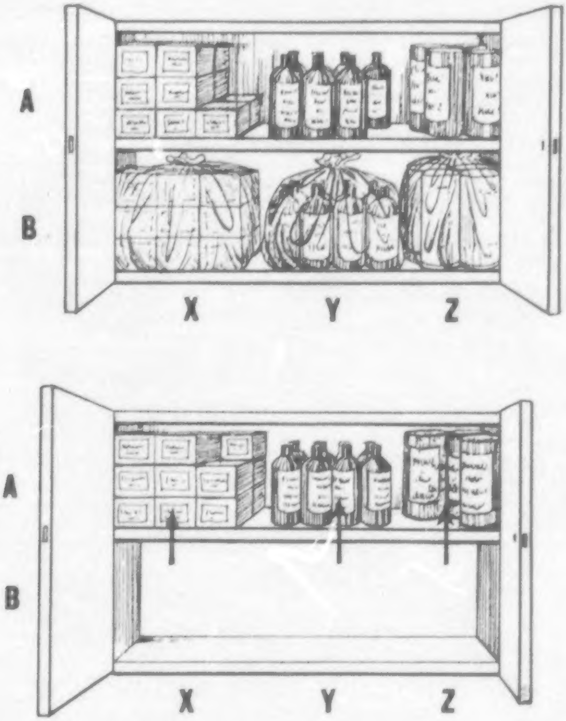
3. When part A on the top shelf is finished, send off the new order.

4. Start to use part B. By the time this is finished the new stocks will have arrived.

Note:

Supply time:	the time between sending an order and receiving the goods.
Purchasing interval:	the time between the arrivals of drug orders, usually 3 or 6 months.

The A/B system as described here will work only if the supply time is half the purchasing interval. If the supply time is longer, a much larger stock must be kept, and part B must be larger than part A.



The A/B or double-shelf system of drug stock control.

Controlling life-saving drugs

Sometimes a patient's condition is so acute, severe or critical that only the immediate use of certain drugs can save his life.

It is of vital importance that such drugs are always in stock. The absence of such drugs in an emergency may result in a patient's death. This is an unnecessary tragedy and a failure of health-service management. Such a tragedy can be avoided by:

1. Making a list of vital or life-saving drugs;
2. Placing them together on one shelf;
3. Checking the shelf frequently or whenever drugs are issued; and
4. Ordering a new supply when stocks reach the half-way point (use the A/B or double-shelf system described above).

* * * * *

Discrepancies in drug usage are identified in the same way as discrepancies of equipment. The amount of drug expected to be used is compared with the amount actually used. If there is a serious difference this is a discrepancy.

The amount of a drug expected to be used can be estimated by applying the formula for estimation explained in 2.3 (page 166).

Estimate a total figure for expected use when one drug is used for several diseases.

The amount actually used is calculated from the issuing records or the stock cards.

Investigating discrepancies takes time; it should be done only when a drug is very expensive or the discrepancy is very large, or both.

Taking action to control overuse of drugs, a common problem, is usually a matter of educating staff in the proper use of drugs.

* * * * *

Pre-packaging drugs for the outpatients' department

This means that a full course of treatment with a certain tablet is put in small envelopes or folded papers, before the clinic or outpatient session. It is ready when the patient needs it. This has a number of advantages:

1. The patient receives the correct and full course of treatment.
2. It saves time and avoids waiting and queuing while tablets are counted.
3. Printed (or duplicated) instructions can be given with the packet or written on the envelope. This tells the patient how and when to take the tablets, and assists his memory. Special signs must be designed for patients who cannot read: e.g., the sun rising on the horizon represents morning.

4. It is very useful in special clinics where standard treatments are given to every person, e.g., iron and folic acid tablets to pregnant women.

5. It makes it easy to observe and control the issue of drugs.

How to pre-package drugs

1. Make a list of those drugs that are prescribed often.

2. Write out details of the usual treatment for each age group, e.g., 1-4 years, 5-9 years, 10-15 years, and adults.

3. Write each day's treatment in such a way that patients can easily understand it.

e.g., adult

Take ONE tablet three times each day

once, on awaking

once, at midday

once, at bedtime

and continue the treatment for....days.

4. Stencil and duplicate the instructions. If possible, use differently coloured paper for each age group.

5. Obtain or make small envelopes.

6. Fill the envelopes with the correct number of tablets for a full course and glue the instructions to the envelope.

Chapter 3: Managing money

LEARNING OBJECTIVES

After studying this chapter the health worker should be able to:

- Keep[a] accounts and
- Use a petty cash imprest system.

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[a] 'To keep' in this context means to make the necessary entries in a ledger.

CHAPTER 3

MANAGING MONEY

Managing money in a health service is complex and responsible work which is done mainly by accountants or finance officers. The health-worker manager of a small unit such as a health centre usually has very little responsibility for spending money. Sometimes, however, a health worker may be asked to record the spending of money (i.e., to keep accounts).

There are two types of money:

1) Invisible money or budgetary allocation. This is money that is not seen or handled. It is a 'paper credit' given as an allowance, allocation or warrant of funds.

For example, the government may give a health centre an allocation of $500 to draw drugs from the government medical stores. The health centre accounts for the drugs drawn from this store, with a paper called an order or requisition to be charged against the allocation. Actual money does not pass through the health centre, but a written account must be kept of each order or requisition used against the allocation (in this case $500).

2) Visible money, or cash. This is money that is seen and handled. It is advanced to the health worker to spend for the work of the health service. It is called cash. It is not safe to have a large amount of cash at the health centre as it may be stolen. For this reason 'visible' money is usually small in amount and is called 'petty cash'.

3.1 KEEPING AN ALLOCATIONS LEDGER (or spending 'invisible' money)

The government (or any other organization) may allocate an amount of 'invisible' money to a health unit. It is usually for a definite purpose and can be spent only for that purpose, e.g., for drugs, equipment or transport. Accurate records of how this allocation is spent must be kept in an allocations ledger.*

An allocations ledger should show the amount allocated and the detailed use of the allocation.

The layout of an allocations ledger is shown below.

ALLOCATIONS LEDGER

Date	Description/Purpose	Document reference (folio No.)	Order or Requisition (Debit)	Allocations (Credit)

---

* allocations ledger = accounts book

Filling in an allocations ledger

The allocation of 'invisible' money may be granted either monthly, quarterly or annually.

When the amount is granted, the date, the purpose and the amount are recorded on the allocations ledger. The reference number of the document that confirms the grant of the money is written in the column headed document reference (folio No.) in order that the original document can be found again when necessary.

When a purchase is made, the date, the order (or requisition) and the amount are also immediately recorded. The number of the requisition-form or order-form is written in the document reference (folio No.) column. From this number the order (or requisition) can be found again in the relevant files that hold copies of the order forms or requisitions.

At certain intervals, e.g. monthly or quarterly, the amount paid out is totalled and deducted from the amount allocated (or received).

The unused balance of allocation is then 'brought forward' (B/F) and is added to the new allocation for the next month, quarter or year, according to the interval chosen.

A detailed example is shown below.

Example: An allocations ledger where a sum of $500 is granted every three months for drugs.

ALLOCATIONS LEDGER

Date	Description/Purpose	Document reference (folio No.)	Order or Requisition (Debit)	Allocations (Credit)
1.7	Allocation for 3 months (July-Sept.)	36		500.00
3.7	Requisition	54	253.20	
15.7	Requisition	55	26.70	
1.8	Requisition	56	134.30	
5.9	Requisition	57	69.00	
	Totals		483.20	500.00
	Balance		16.80	
30.9	Balance brought forward ("B/F")			16.80
1.10	Allocation for 3 months (Oct.-Dec.)	37		500.00
5.10	Requisition	58	276.80	

Note: Drugs which have been ordered will be found by referring to the file containing copies of requisitions numbers 54 to 58.

3.2 USING A PETTY-CASH IMPREST SYSTEM (or spending 'visible' money)

"Petty cash" means a small amount of money.

Most work-places find it convenient to have some petty cash. 'Invisible' money (allocations) can be used for large purchases such as drugs and equipment, but there are many small items which cannot be bought with allocations, e.g., bus fares, postage stamps, etc.

Petty cash is advanced to the health worker to be used exclusively for certain authorized health service needs. What the health worker is allowed to buy or pay for with petty cash may vary from one place to another. Below are some examples of the types of items that are sometimes paid for with petty cash.

Transport:	Bus fares, mending bicycle punctures, petrol
Postage:	Stamps, telegrams, calls from a public telephone box
Cleaning needs:	Soap, detergent, antiseptic, furniture polish
Office needs:	Paper, envelopes, glue, string, sellotape, pins
Sundries:	Matches, paraffin, candles, tea, emergency supplies.

The imprest system

An imprest is an advance of cash given for a particular purpose and is replenished as necessary.

An imprest is always restored to its original level. In this way it is different from a grant, which is a definite amount for a definite period. An imprest may be replenished at any time when the cash balance is becoming low.

Thus, if special needs arise, the imprest cash may be spent within a week, but at other times it may last for one or two months. Whatever the period, the imprest will be replenished to the original level, provided that the money spent has been accounted for.

Let us suppose a health worker is given an imprest of $20. He finds his office supplie are low, so he buys some stationery, carbon paper, stamps, glue and paper clips all in one week. He spends a total of $18.00, leaving only an unspent balance of $2. He then takes his receipts and petty-cash book to his finance officer, who will give him $18 in cash to make the imprest up to $20 again. The imprest is now replenished.

It may now take a few weeks before he uses all the office supplies he bought, so that he may not need to replenish the imprest for a month or more.

An imprest is only replenished against original receipts of money spent. This prevents misuse of funds.

At any time unused cash plus disbursements must total to the imprest level.

The petty-cash voucher

Each time money is spent from the petty-cash box, it must be recorded on a form. This form is called a petty-cash voucher. Each petty-cash voucher is numbered and is kept and filed in order.

Each petty-cash voucher must have a receipt attached to it from the person who sold the goods. If this is not possible, the voucher is signed by the health worker in charge of the petty cash. These vouchers must be kept carefully because the finance officer, chief cashier or auditor may ask to see them at any time.

Example of a petty-cash voucher (PCV)

Voucher No. PCV 17 ....

Date 11.12.1978 ....

PETTY CASH VOUCHER

Goods	Amount $
1 packet candles	1.25
1 box matches	0.10
	1.35

Encl. receipt (to attach to the PCV)

Signed (by health worker who made the purchase) ....

Passed (by finance officer) ....

Normal way of keeping petty-cash records

There are two ways of keeping petty-cash books.

1. The simple petty cash book which is used to record small amounts and where there is no need to know the breakdown of expenditure by category.

A simple petty-cash book has five columns as shown in the following example.

Date	Details	Voucher No.	Amount	
			Received $	Paid-out $
1.4	To imprest (original funding)	-	20.00	
2.4	Stamps	1		4.20
3.4	Bus fares	2		1.30
8.4	Telegram	3		2.20
11.4	Stamps	4		1.20
	Bicycle puncture	5		1.70
	Stationery	6		3.60
12.4	Kerosene	7		3.00
15.4	TOTAL		20.00	17.20
	Balance			2.80
16.4	Balance "B/F"		2.80	
	To imprest (replenishment)		17.20	

In this example an imprest of $20 is established, seven payments have been made, totalling $17.20, using seven petty-cash vouchers, leaving a balance of $2.80. At this point the imprest is restored to the original $20 by adding the amount replenished ($17.20) to the remaining balance ($2.80).

Some organizations need to know how much is spent on transport, how much on postage and how much on office supplies. In such cases a columnar petty-cash book is used.

2. The columnar petty-cash book provided more details than the simple type. It has the advantage that each type of expenditure is recorded in a separate column. It shows not only the total spent but also how much is spent on separate items such as stamps, bus fares, office stationery, etc.

An example of a page of a columnar petty-cash book is shown below. It shows the same items as the example above, but in this case the amount spent is recorded in separate headed columns according to the type of expenditure. Each column is added vertically. The totals of the "paid-out (details) columns are added horizontally. These must tally.

The original imprest level less the total expenditure gives the balance on hand. The balance in the petty-cash book must agree with the cash held in the box.

Example of a page of a columnar petty-cash book

Date	Details	Voucher No.	Amount		Paid-out (details)			
			Received	Paid out (total)	Postage	Transport	Office	Sundry
1.4	To imprest (original funding)	1	20.00					
2.4	Stamps	2		4.20	4.20			
3.4	Bus fare	3		1.30		1.30		
8.4	Telegram	4		2.20	2.20			
11.4	Stamps	5		1.20	1.20			
	Bicyle puncture	6		1.70		1.70		
	Stationery	7		3.60			3.60	
12.4	Kerosene	8		3.00				3.00
15.4	TOTALS		20.00	17.20	7.60	3.00	3.60	3.00
	Balance			2.80				
	Balance "B/F"		2.80					
16.4	To imprest (replenishment)	9	17.20					

Note: The imprest level is given in the column "Received". The number of each petty-cash voucher form is written in the appropriate column. In this example, the imprest is replenished after 16 days. A larger imprest would be a serious responsibility in view of the risk of theft.

KEEP THE PETTY CASH UNDER LOCK AND KEY!

Chapter 4: Managing time

LEARNING OBJECTIVES

After studying this chapter and performing the exercises on page 243 the health worker should be able to:

Investigate the use of time by himself and the other staff members;

Plan the use of time according to the work to be carried out;

i.e., arrange timetables and schedules
arrange duty rosters
arrange long-term programmes
annotate and use a year calendar.

CHAPTER 4

MANAGING TIME

TIME IS A RESOURCE

Time is not often thought of as a resource. But, as stated in Part I, page 45, time is a non-renewable resource. An event cannot take place unless there is time for it.

USING TIME EFFECTIVELY IS A MANAGEMENT SKILL

This chapter is concerned with two aspects of the management of time:

1. How to find out (investigate) how time is being spent by staff in a health service[a].

2. How to plan the use of time according to work to be done, using timetables, schedules, rosters and programme charts.

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[a] Acknowledgements to Dr David Morley for this section.

4.1 FINDING OUT HOW TIME IS USED

How much time is spent with patients; how much with correspondence; how much talking to staff; how much visiting in the district?

These questions and others like them can be answered roughly by keeping a daily diary for a few days. An example, in the form of a table, is shown below.

The health worker should make a similar table for his present activities and those of the other members of the staff, using different headings according to the work situation.

Example: Daily time-diary of a medical assistant in a health unit

Name of staff-member .... Day .... Date ....

Time	Patients		People		Admin.		District	Breaks	Remarks
	O.P.D.	Wards	Staff	Meetings	Office	Stock Insp.			
7.30	1hr								
8.30	1hr								
9.30		1hr							
10.30			10m		20m			30m	Tea
11.30	1hr								
12.30			20m		40m				
1.30				1hr					Weekly
2.30				30m					
TOTAL	3	1	30m	1.30	1	Nil	Nil	30m	7hrs 30m

Finding out monthly time proportions

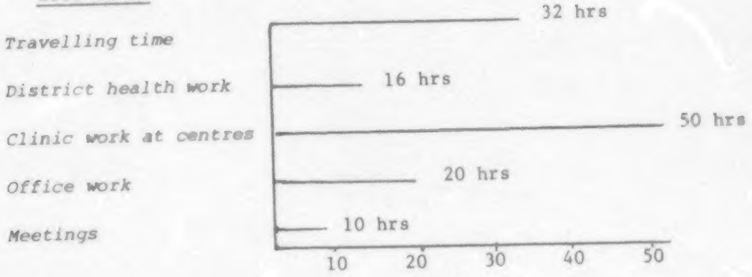
Sometimes it is useful to know what proportions of time are spent on certain activities.

For example, it may take four hours to travel to a distant peripheral health unit where only one hour is spent on health work, followed by four hours to return. In this case the proportion of health work compared to travel is 1 to 8 out of every nine hours. In such circumstances it might be decided to visit less often, and to stay overnight and work the following morning. Then the journey of four hours is followed by four hours work on that day, four hours the next morning and a four-hour return journey. This makes the proportion of work to travel 8 to 8, which is a more efficient use of time and gives a better service to the people.

To find monthly proportions of district health work and district travel, add the times of each journey for the month and the time spent working in the district.

Times for these and other activities can be shown on a diagram.

Example: Number of hours spent in month of June by nurse-midwife X on several activities



An exercise of adding time use, and then recording it in a diagram like this, will often reveal where time is being wasted or not used in the best way.

Planning time arrangements

Events are arranged in daily, weekly, monthly or yearly time periods. The periodicity depends on the frequency or regularity of particular events.

Time plans are written in various common forms known as timetables, schedules, or programmes. These words are often used to mean the same thing, i.e., a time-plan. In this manual they have the following meanings:

Timetable:	daily or weekly regularly recurring events
Schedule:	intermittent or irregular or variable events, and where they take place.
Roster:	duties planned for different staff members, for different times. in turn.

Programme:	long-term arrangements of several different events or activities, of which the time plan is only one part.

Time plans in a health service

A well-managed rural health unit may need the following time plans:

(i) A weekly timetable showing the time of the week when certain regular events always occur (e.g., staff meeting)

(ii) Several schedules showing the detailed dates on which intermittent events occur and where they occur (e.g., visits to peripheral centres or mobile clinics)

(iii) Several duty rosters for appropriate sections of the work (e.g., night-call, outpatient roster)

(iv) A programme of any special health activity (e.g., a nutrition campaign)

(v) An annual overview of events.

Sometimes a timetable, a schedule and a roster may be combined.

Making the best use of time!

4.2 PREPARING A HEALTH UNIT TIMETABLE

First, list all activities that happen regularly each week. Then arrange them in an appropriate timetable grid (ruled squares) according to local working hours.

Example 1: Health centre weekly activities and timetable in a timetable grid

List of regular activities:

Outpatients	*Daily*
Ward round	*Three times a week*
Hygiene round	*Once a week*
Stock inspections	*Once a week*
Office correspondence	*Once a week*
TB/Leprosy clinic	*Once a week*
Home Visists	*Twice a week*
Staff meeting	*Once a week*
Clinical seminar	*Once a week*
District visit to peripheral health unit	*Once a week*

Weekly timetable in a timetable grid

Time	Mon	Tues	Wed	Thurs	Fri	Sat
7.30	OPD[a]	OPD	OPD	OPD	OPD	OPD Ward round
10.30	B	R	E	A	K	
11.00	Ward round	Office	Ward round	TB/ Leprosy clinic	District	Hygiene round
12.30	B	R	E	A	K	
2.00	Stock Inspection	Home Visits	Staff meeting	Clinical seminar	Home visits	

---

[a] Outpatients' Department

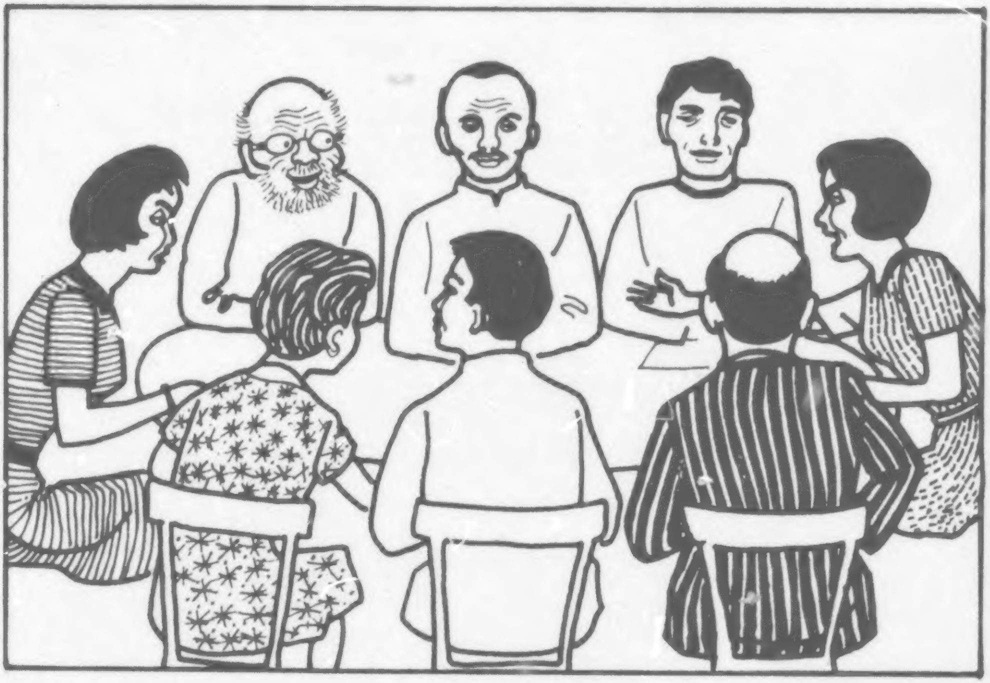
Example 2: Community activities for one month

See following table.

Example 2

Month:

Day	Community activities							
	1st week		2nd week		3rd week		4th week	
	Area or District	Activities	Area or District	Activities	Area or District	Activities	Area or District	Activities
Monday	North end of village	Home visiting	Village	Visit market on market day Discuss hygiene	North end of village	Inform people of pending immunization sessions	East end of village	Continue and complete immunization
Tuesday		Group: Health education. Nutrition demonstration	Village	Visit school. Talk with teacher. Hygiene discussion with teacher and children		Immunization sessions		
Wednesday		Meeting with village people. Discuss community project, e.g., digging well or latrines	East end of village	Home visiting				
Thursday	South end of village	Group health education		Group health education	South end of village	Inform people of impending immunization session		Write up records of immunizations. Review future equipment needs etc.
Friday		Health education in village school. Meeting with school teacher		General meeting with people and other community development workers		Immunization session		



Teamwork in planning and scheduling health activities

4.3 PREPARING HEALTH UNIT SCHEDULES

A schedule is required when a different activity or the same activity in a different place is spaced at intervals over time.

For example, home visists may be made daily or several times a week but they may cover different villages or different types of disease at special times. Similarly, mobile teams may travel on the same day each week but visit a different area. It may be decided to have an inspection every Monday but to inspect a different part of the health unit each week.

To make a schedule, each different activity or each different place is listed and passed through the dates in turn; then the whole cycle is repeated.

To do this, a calendar is needed showing the dates of the chosen days in the months ahead.

Schedules for mobile team visits need a map showing routes, distances and travel times. Note that travel times depend on the state of the road, the number of hills, and other factors besides the distance. Often half a team can be left at one place while the rest go on to another, thus saving time. Returning by a circular route and visiting another place later in the day is also a possibility.

Other factors of importance in the schedule are the number of people in the villages or area (population density) and the days of local markets.

The following examples show schedules and map for mobile team visits and for health unit supervision.

Example 1: Schedule for mobile team visits to cover eight villages

Arranged routes (see map)

Route 1) Visit A, B and C.
Leave half the team at A, to walk to C later.
Proceed to B for morning clinic.
Whole team at C for afternoon clinic.

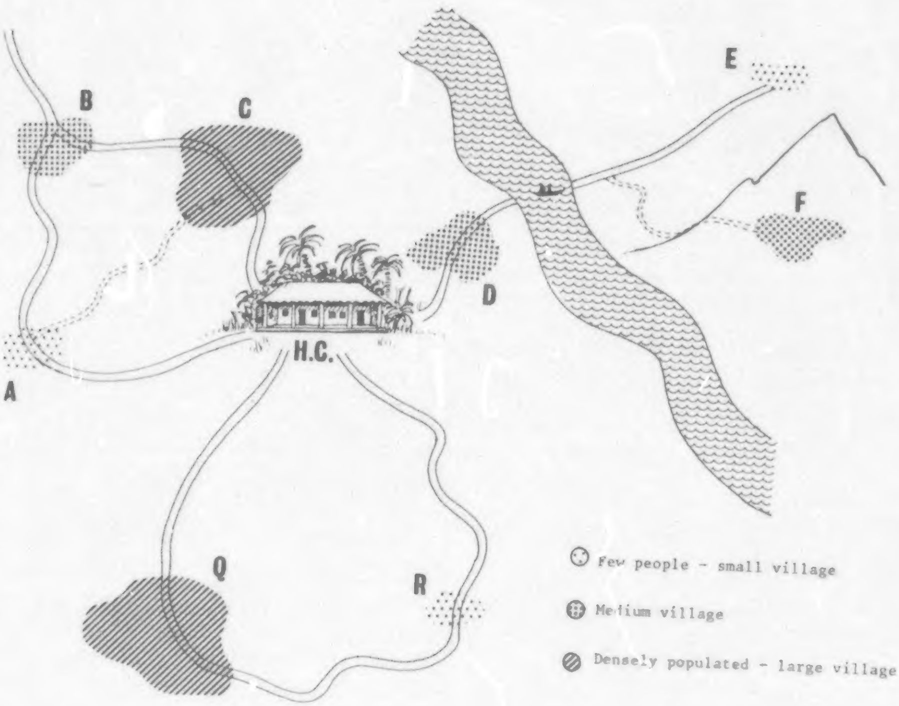
Route 2) Proceed to E to catch early morning ferry.
Return to D by midday to hold afternoon clinic.

Route 3) Visit X only (long distance over mountain road).

Route 4) Morning clinic at Q.
Short clinic at R on return.

Travel every Tuesday and Friday, thus visiting each place every two weeks.

		Villages ABC Route 1	Villages DE Route 2	Villages X Route 3	Villages QR Route 4
April	Tuesday	April 04			
	Friday		April 07		
	Tuesday			Arpil 11	
	Friday				April 14
	Tuesday	April 18			
	Friday		April 21		
	Tuesday			April 25	
	Friday				April 28
May	Tuesday	May 02			
	Friday		May 05		
	Tuesday			April 09	
	Friday				May 12
	Tuesday	May 16			
	Friday		May 19		
	Tuesday			April 23	
	Friday				May 26


B
C
E
F
D
H.C.
A
Q
R
Few people - small village
Medium village
Densely populated - large village

Example 2 *Supervision and maintenance check of a health unit by schedule*

Note: This is a function of control and maintenance.

To be inspected	*Every Monday, as shown*		
Store-room and stock ledger	*April 03*	*Holiday*	*July 24*
Laboratory, laboratory inventory	*10*	*June 05*	*31*
Building, grounds, kitchen	*17*	*12*	*Aug 7*
Vehicle and log-book	*24*	*19*	*14*
Outpatients and inpatients	*Holiday*	*26*	*21*
Maternity and MCH unit	*May 08*	*July 03*	*Holiday*
Office and filing systems	*15*	*10*	*Sept 04*
Drug stock and drug usage	*22*	*17*	*11*

In this example, each section has a special control inspection every eight weeks (two months). This spreads the work of control and maintenance evenly over the year and takes a very short time (perhaps one hour) each week.

Public holidays often occur on scheduled dates. When this happens, another time must be planned for the activity, or the inspection may wait for another eight weeks.

4.4 PREPARING DUTY ROSTERS

A duty roster is a time plan for distributing work among staff members in turn.

Duty rosters are common in all types of health work. They are needed for three purposes:

1. To distribute work fairly and evenly outside normal working hours,
   e.g., night duty
   weekend duty
   holiday duty and
   overtime duty

2. To distribute uninteresting or difficult work, and interesting or varied work, equally among the various members of the unit; e.g., in maternity work, midwives could rotate among the mobile team, the delivery unit and the clinic.

3. To divide extra duties among the whole staff. Such extra duties might include supervision of the nutrition garden, making education posters, tracing defaulters and doing the hygiene inspection.

Making duty rosters so that they are fair and just to all staff members is both difficult and important. They can cause a great deal of trouble and quarrelling unless they are arranged very carefully.

Duty rosters have to be changed frequently because staff become sick, or go on leave, or are transferred or promoted, or because public holidays intervene.

Two rules for duty rosters

When rotating several people (or groups) through several types of duty, there are two definite rules:

1. The length of time of each duty period must be the same as for all other types of duty period. A duty period may be a day (e.g. Sunday) or a week or a month, but all periods must be the same within a single roster.

2. The number of persons (or groups) working in turn must divide evenly into the number of duty stations (or duty periods); e.g., three people cannot be rostered through five duty stations nor five people through three duty stations.

To make a duty roster:

1. List the date of beginning each new roster in the column on the left.

2. List the duty stations across the page.

3. Fill in the names in order from left to right, starting each new line one column further on.

An example of a duty-roster problem

Suppose there is a group of eight nurses to work in turn through six different health centre duties, e.g., wound dressing station, injections station, examination room, MCH clinics, maternity delivery ward, and night duty.

Remember the roster rule: the number of duty periods must be equal to, or divide evenly by, the number of persons (or groups) to be rostered.

There are six duty periods and eight persons. Because eight cannot divide evenly into six, it is not possible to make a roster.

What is the solution to this problem?

1. *Reduce the nurses to six groups by making two groups of two nurses and four 'groups' of one nurse, or keep two nurses in reserve to be placed when others fall sick or become busy, or*

2. *Increase the duty periods to eight by doubling the time of time duty stations, so that they appear twice on the roster.*

Solution 1. Reduce the number of nurse groups to six; this permits a six-week roster.
(Eight nurses are Nurses A, B, C, D, E, F, G, H)
(Six nurse groups are AG, BH, C, D, E, F)

Six Week Roster

Week beginning		Wounds	Injections	Examination Room	MCH	Deliveries	Night duty
April 10	May 22	AG	BH	C	D	E	F
17	29	F	AG	BH	C	D	E
24	Jun 05	E	F	AG	BH	C	D
May 01	12				AG	BH	C
08	19					AG	BH
15	26						AG

OR

Solution 2. Increase the duty stations to eight; this permits an eight-week roster.
(Eight nurses are Nurses A, B, C, D, E, F, G, H)

					double		2 duty stations		
Weeks beginning		Wounds	Inject-ions	Exam. Room	MCH	MCH	Deliv.	Deliv.	Night Duty
April 10	Jun 05	A	B	C	D	E	F	G	H
17	12	H	A	B	C	D	E	F	G
24	19	G	H	A	B	C	D	E	F
May 01	26				A	B			
08	Jul 03					A			
15	10						A		
22	17							A	
29	24								A

4.5 PREPARING A PROGRAMME CHART

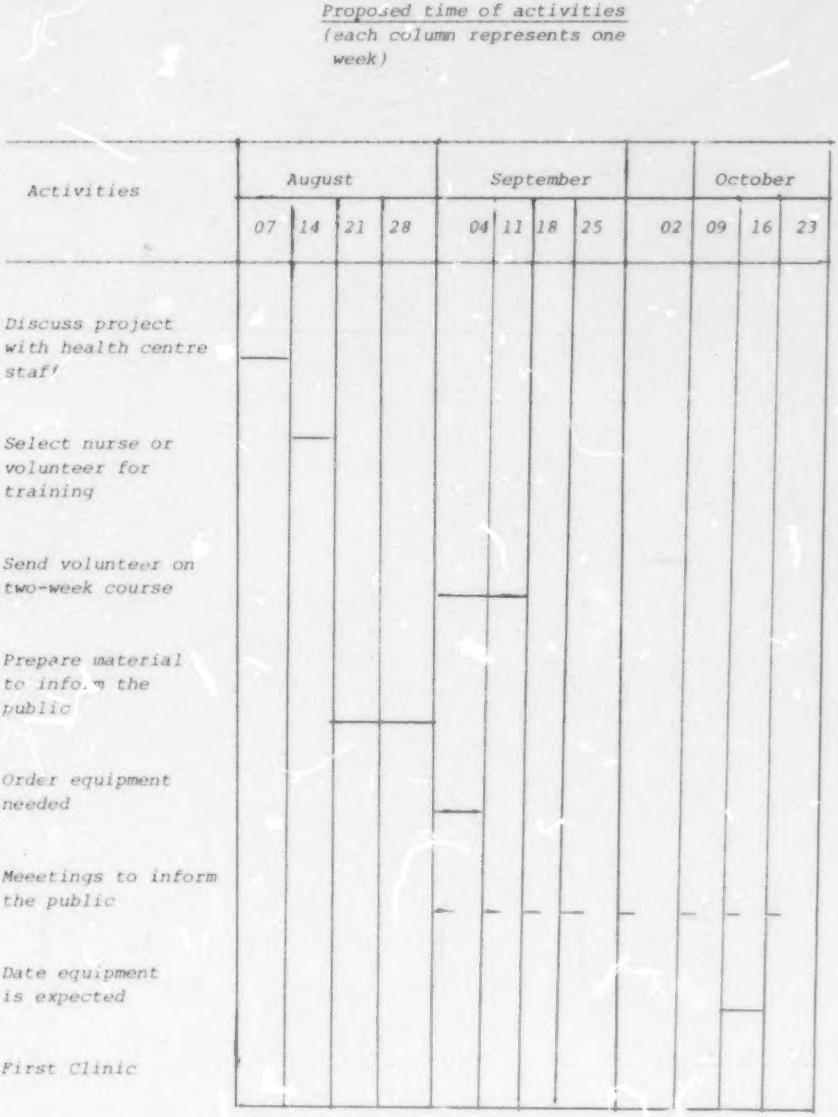
A programme is a plan that outlines a series of events or activities that will take place in the future. A programme usually includes what will be done, where it will take place, who will do it, and when it will occur. Therefore, the time plan is only part of the total programme. A simple programme of health education may be a series of monthly discussions with the community in which different speakers will discuss various health problems.

In more complex programmes later activities depend on earlier ones: e.g., to organize a special or extra immunization programme, it may be necessary first to order the equipment (e.g., syringes). Or, if a new activity is to commence, perhaps a staff member has to be sent on a training course; and also the public must be informed.

There are several ways to make a programme chart. A convenient way is to list the activities, in the order in which they must occur, down the left side of the page and then fill in the weeks or months across the top of the page. (This is sometimes called a Gantt Chart).

Example of a timed programme arrangement in the form of a Gantt Chart

To establish a new child-spacing clinic in health centre X



4.6 PREPARING A YEAR CALENDAR

Many things happen in the course of a year that are outside the normal routine. These may be matters of administration such as annual stock-taking, estimates, annual report, statistical returns, or they may be events from outside such as festivals, elections, conferences and seminars, or visits of dignitaries.

So that the whole year can be seen at once, it is very convenient to have a one-page annual calendar or year-planner pinned on the wall with important events marked.

This has two functions:

1. As a reminder of definite events, usually outside one's control.

2. To show where it is possible to fit in new events such as special meetings or periods of travel.

Use lined foolscap paper, which usually has about 30 lines. Write dates of the months down the left margin and draw 12 x 1.25 cm columns across the page, one for each month.

Enter dates you wish to be reminded of, and all public holidays.

A Year Calendar

DATE	J	F	M	A	Ma	Ju	Jy	Au	S	O	N	D
1					▨							
2												
3												
4												
5		x D									Elec.	
6		x M x O									day	
7												
8									▨ ANNUAL LEAVE			
9												
10				SEMINAR		xM						
11						xO						
12						xH						
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24			▨									
25												▨
26												▨
27			▨									
28								▨				
29					▨							
30												
31												

CODE ▨ PUBLIC HOLIDAY

x VISITS

Chapter 5: Managing space

LEARNING OBJECTIVES

After studying this chapter and performing the exercises on page 251 , the health worker manager should be able to:

Arrange working-space in such a way that work functions smoothly and for the convenience of the community;

Identify on a map the catchment area of a health service;

Use maps in district health work;

Make a sketch map of a health district.

CHAPTER 5

MANAGING SPACE

In this chapter we are concerned with two kinds of space and how to use them best in providing health care:

- the buildings or other settings where health care is given, and
- the geographical or "catchment" area served by a health centre.

5.1 ARRANGING WORK-SPACE

Good management takes care in arranging the space where the staff work. Very many health units have unsuitable space arrangements, because of the small size of the building or the rooms, or their awkward shape. More often it is because no one has given the matter any thought.

There are no complex rules about space arrangements. The basic rule is to think about them instead of arranging things anyhow.

One should ask two simple questions:

1. What work has to be done here?
2. Could this space be arranged in another way that would help the work and suit the patients better?

Example 1

A medical assistant examined adult patients at one end of a room containing a table and chair. At the other end a nurse examined children.

There was no examination couch. For a full examination adults had to cross the corridor to another room. This took time, with the result that the medical assistant rarely had time to examine anybody.

A good supervisor came and placed two screens beside the medical assistant's table and a narrow bed behind them. Patients could now undress in privacy, while the medical assistant continued with the next patient. This made his work much easier, suited patients better and avoided waiting and delays.

Note: Simple screens, made of a timber frame covered with cloth, are a very useful way of making extra rooms.

Example 2

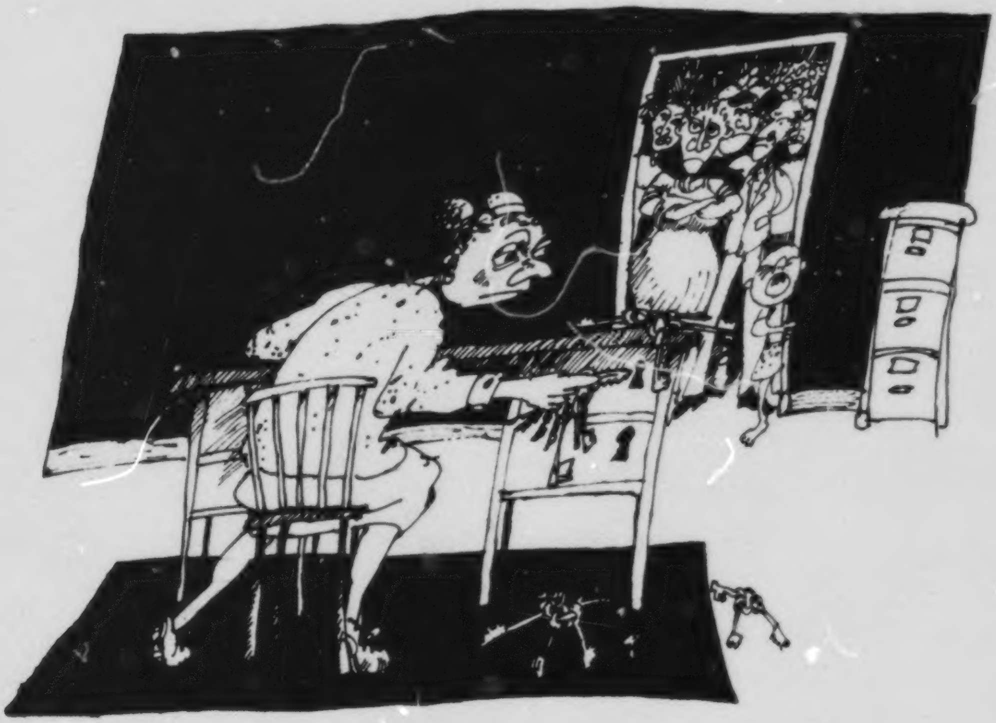
A common space problem is lack of storage space. Stores are often much too small and become overfull so that it is difficult to find things.

There are several possible solutions to this. One is to place cupboards with locks along a corridor. Another is to turn the office into a large store and use the small store as a small office.

5.2 ARRANGING WORK-FLOW

One of the features of many health units is a lack of order in the way people are handled. In the same space people sit around waiting, while others stand in queues; people get in one another's way or impede the work of the staff. Most of these problems can be improved by a health worker who pays attention to 'work-flow'.

Work-flow is an arrangement in which a series of work functions are coordinated in space and time so that delays are minimal. The greatest obstacle to the organization of work-flow is a wrong attitude. Congestion and queues are now so common in health services that most people regard them as normal or inevitable and make no effort to prevent them. Some people think that long queues show how busy and hard-working they are.



A blockage in the system caused by inefficiency!

Work-flow in a factory

Most factories, or production units, provide good examples of work-flow. Whether a factory is automated or works by human labour, the procedures always follow each other in a space time order.

Consider a bottling factory. Used bottles are received and washed. They move to the next area and are sterilized and dried. They move to another area and are filled with fruit juice. They then move to the next stage and the caps are fixed on.

Suppose something went wrong with the filling stage, e.g., that stocks of fruit juice ran out. Then the clean and dry bottles would keep coming and pile up together in the filling room. Meanwhile the workers in the following stages would have nothing to do.

This is what happens when there is a queue in a health centre. There is a delay or a blockage in one stage of a work-flow.

But moving people like bottles in a factory is not the best way to help them - so what are the alternatives?

Work-flow in an outpatient department

To organize a work-flow in an outpatient department each stage must be examined separately. If there is a queue it is a sign that work speed or work efficiency must be improved, or that work distribution must be changed.

The usual flow in an outpatients unit is as follows:

IN
→ Registration
Examination
Laboratory
Treatment room
Pharmacy → OUT

It is essential to examine the whole process. Removing a queue from one stage may result only in creating a queue at another; e.g., if registration is speeded up, so that patients get their cards quickly, a queue may form outside the examination room. If the position at the examination room is improved, patients may have to wait at the pharmacy for their drugs.

EXAMINE THE WHOLE WORK-FLOW

Some ways to improve work-flow

A good work-flow has been achieved when each patient can go through each stage with only a very short waiting time.

The following are some ways to avoid delays:

1. Label every door so that patients know where to go.

2. At registration:

   Have separate systems for returning and new patients;

   Let returning patients keep their cards, or let them have numbers by which their cards can be rapidly found;

   Establish a workable filing system for cards by which they can be found rapidly.

3. For the best use of the examination room:

   i) Train an orderly or junior nurse to screen[a] patients in a different room or other space, e.g., to take the history; to take the temperature; and, if there is a fever, to make a blood slide;

   ii) Patients returning daily for a course of treatment should go direct to the treatment room;

   iii) Have printed or duplicated prescriptions ready for all routine minor complaints;

   iv) Establish clinic days for special conditions that require time, e.g., tuberculosis, leprosy, malnutrition;

   v) Make appointments for busy officials for less busy times.

4. In the pharmacy:

   i) Keep a stock of written instructions to patients on how to take routine courses of drugs;

   ii) Pre-package routine courses of drugs (See page 174 above);

5. Organize a family health service. This method concerns care for whole families, and the families' relations with the health centre staff.

   A number of families from a district, a village, hamlets or several streets, are assigned to a health centre worker who is responsible for their health care. As a result, a woman need not make several visits to the health centre, e.g., for prenatal care one day and for childrens' immunization another day. Instead, her own and her family's needs can be met in one visit. The health worker receives and examines the family and advises or prescribes for them at one time, and then visits them at home when she goes to work in the community. For convenience, or because each health worker can hardly have a separate treatment area, it is usually necessary to maintain a clinical area for dressings, injections, fitting of contraceptives, etc. towhich people are referred, but they always return to their own health worker before leaving the health centre.

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[a] To screen in this context means to examine everyone briefly (e.g., by interview and a quick examination) to ensure that those who do not need to see the doctor or another senior health worker are dealt with instead by other members of the staff. The doctor, for example, can then give sufficient time and attention to the patients who need a level of medical care that a medical assistant alone cannot give.

Such a family health service has several advantages:

1. Unnecessary journeys are avoided especially for mothers with several children. Families visit the centre less often, apart from special visits for treatment for a particular member (e.g., to collect drugs for leprosy, tuberculosis). Women attending prenatal clinics can bring their children at the same time.

2. Staff have much more job satisfaction. The varied activities and sense of responsibility stimulate interest. Families feel they have a friend at the health centre.

3. The family is seen as a total unit, and a health problem can be seen in its entirety. The history obtained is the family history; the same information is not requested several times.

4. It enables less skilled health workers to better screen clinic attenders so that only patients with problems that need more skilled medical or nursing care take up the time and effort of a supervising nurse or doctor. Usually most people can be cared for by the less skilled health workers, and only the more serious problems have to be referred to the more highly qualified staff.

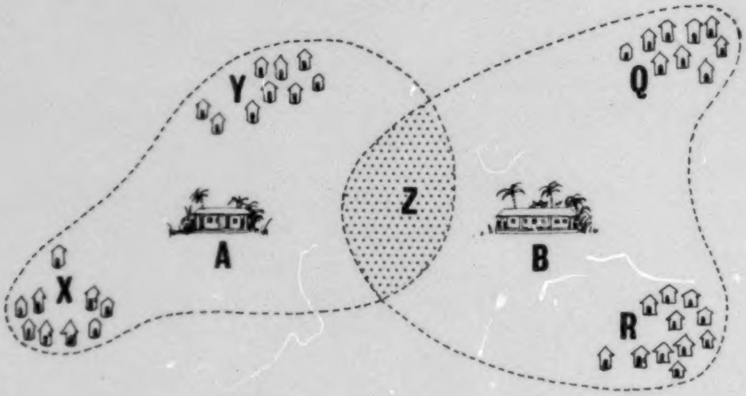
5. Work is more efficient because time and other resources are used better. Training programmes can be set up to enable health workers to deal with their expanded role as family health workers. Staff can be rotated in 'family duty' so that those working in the treatment area may become family health workers for a time.

5.3 IDENTIFYING THE CATCHMENT AREA

'Catchment area' is a term borrowed from geography where it means that part of a land surface from which rain-water is collected and flows into a river or lake.

When this term is applied to a health unit, it means the area from which patients come to the health service. In the case of a regional or district hospital the catchment area is the whole region or district; for a health centre it would be the villages around the health centre, and for a small treatment post or aid-post it might be only one village.

When there are several health centres in a district their catchment areas may overlap, as shown in the following diagram or two catchment areas.



People living in the shaded area Z could go to health centre A or B

People in X and Y go to A, and people in Q and R go to B.

IDENTIFY THE CATCHMENT AREA

The idea of catchment area is very important because it identifies the area of responsibility of a health unit. A health unit is meant to give a complete health service to all the people and communities in its catchment area. This means that all matters affecting health within the catchment area are management responsibilities of the health unit. To know what these responsibilities are the catchment area must be identified.

5.4 USING MAPS IN DISTRICT HEALTH WORK

A district health centre without maps is like a physician without a clinical record: an important guideline is missing.

The following are some of the many uses of maps in health work:

1. To show distances to various health units and villages. Distance can be measured in kilometres or in travelling-time. Travelling-time is the more important for health work. It will be shown in the map by the presence of bad roads, winding roads, mountains or ferries.

   With the aid of a map, the travelling-time to each place should be listed on a separate paper.

2. To plan routes. In district work it may be convenient and time-saving to visit two or three places on the same day. Suitable routes can be planned with the help of a map.

3. To decide on travelling methods. Some routes may be covered by regular bus services which may be used. These can be marked on the map. Other roads may be impassable except by jeep, or they may be impassable at certain seasons.

4. To learn the population distribution and density of an area. The main centres of population are shown on the map. The density of population (number of people per km) can also be shown. This helps to decide how long a clinic session or health campaign is likely to take.

5. To learn of the different types of community in an area. There may be villages of different types, e.g., the standardized housing of plantation workers, or semi-urban communities in large villages, or very scattered farms.

6. To obtain information about the community environment. Maps can give a great deal of information about the environmental features that influence health: e.g., a map can show all the main water sources such as rivers, wells and springs and whether they are dammed or piped. A detailed map could also show the number and distribution of sanitary facilities in an area.

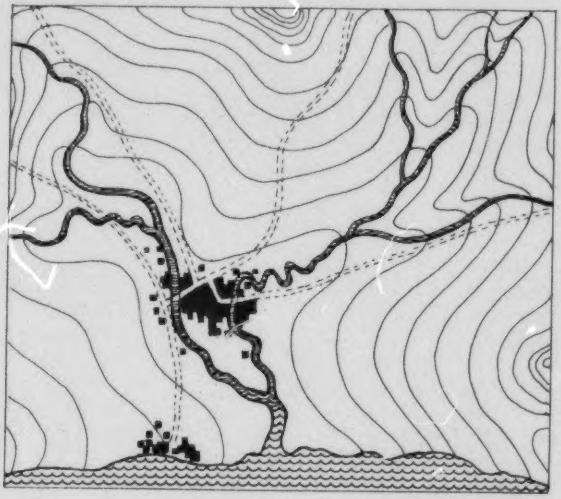
7. To show the topography of an area, i.e., its physical features: mountains, rivers and vegetation, and whether the vegetation is forest, bush or cultivated land.

8. Public buildings may be marked on a map, particularly those that can be used for health work such as clinics or meetings. Schools, community halls, administration offices or large warehouses may be borrowed when necessary for different types of health work.

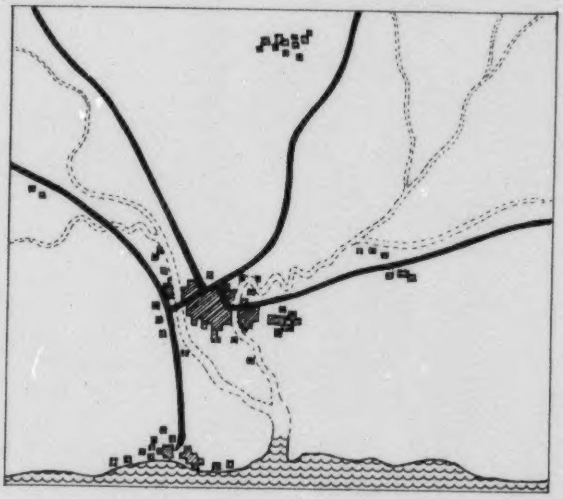
9. Information obtained from health surveys is sometimes shown on maps by means of coloured pins; e.g., one pin for every 10 or 20 patients with a certain disease, such as leprosy, can be stuck in the part of the map that shows where those patients live. The distribution of pins will then indicate the distribution of leprosy in the area. This, in turn, will show the most convenient places for mobile clinics.

Not all features can be recorded on one map. Usually several are needed, each giving a different kind of information.

Below are two maps of the same place: one showing topography and rivers, and the other showing population density and water supplies.



Topography and rivers



Population density and water supplies

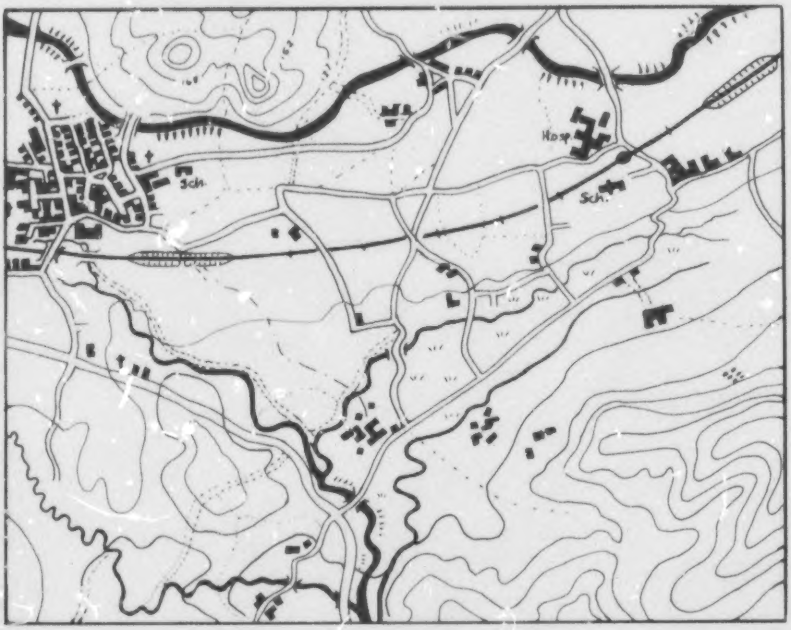
5.5 MAKING A HEALTH DISTRICT SKETCH MAP

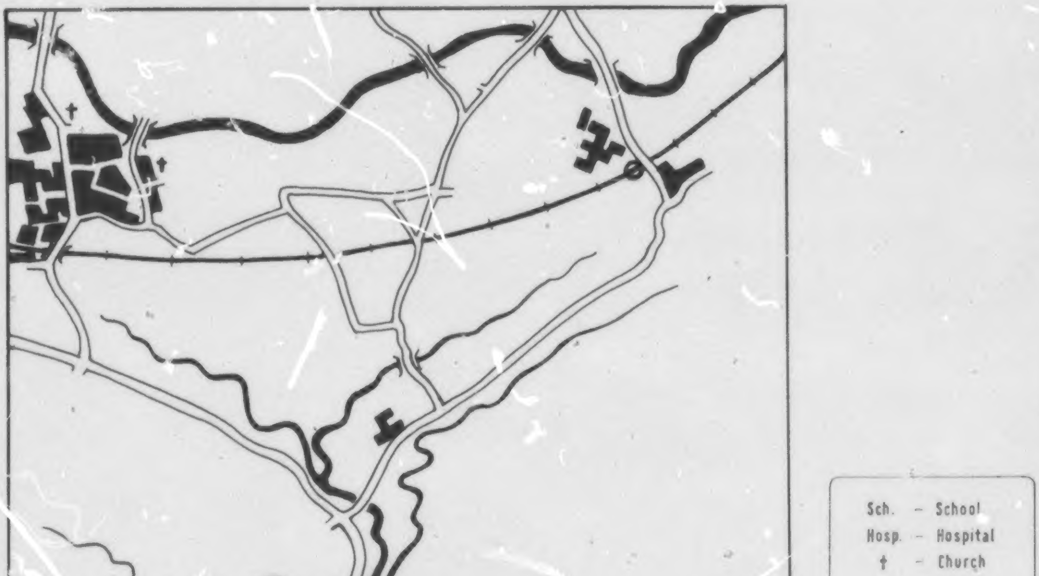
Geographical mapping is difficult and time-consuming. Each feature must be in exact proportion. A health worker does not have the skill or the time to make proper, in-scale, geographical maps.

Often, local maps may be obtained from the local government office or land department. They may be unnecessarily detailed, but the main features needed for health work may be traced from the map on transparent paper and then transferred to a large card and hung on a wall. If there is no official map, a rough sketch-map of the whole area is better than none.

Prepare a code of signs to use on the map, for the features that must be shown, such as the following:

The following is an example of such a map:


Sch.
Hosp.
Sch.


Sch. – School
Hosp. – Hospital
† – Church
–+–+– – Railway

Chapter 6: Managing paperwork

LEARNING OBJECTIVES

After studying this chapter and performing the exercises on page 257, the health worker should be able to:

Organize an office in a health unit;

Write referral and other official letters;

Set up a filing system;

Arrange and index an office system in a health unit.

CHAPTER 6

MANAGING PAPERWORK

Paperwork, mainly correspondence and the maintenance and use of records, is an essential part of the management of a health service. Almost all health activities are accompanied by paperwork. Its quality and efficiency play a large part in the effectiveness of health care activities and programmes. Without a well ordered records system, for example, neither clinical care nor community health work can be monitored or controlled. Paperwork is the communication system (correspondence), the information system (reports) and the memory system (records, registers) of a health service. This chapter deals with the writing of referral and other official letters, and with the organization of a records system.

6.1 THE FUNCTIONS OF AN OFFICE IN A HEALTH CENTRE

An office is a place where paperwork is done and documents and letters are stored. It is not always a whole room: it may be a table or a desk or a corner of a room.

Some of the main functions of a health unit and the related necessary paperwork are shown below.

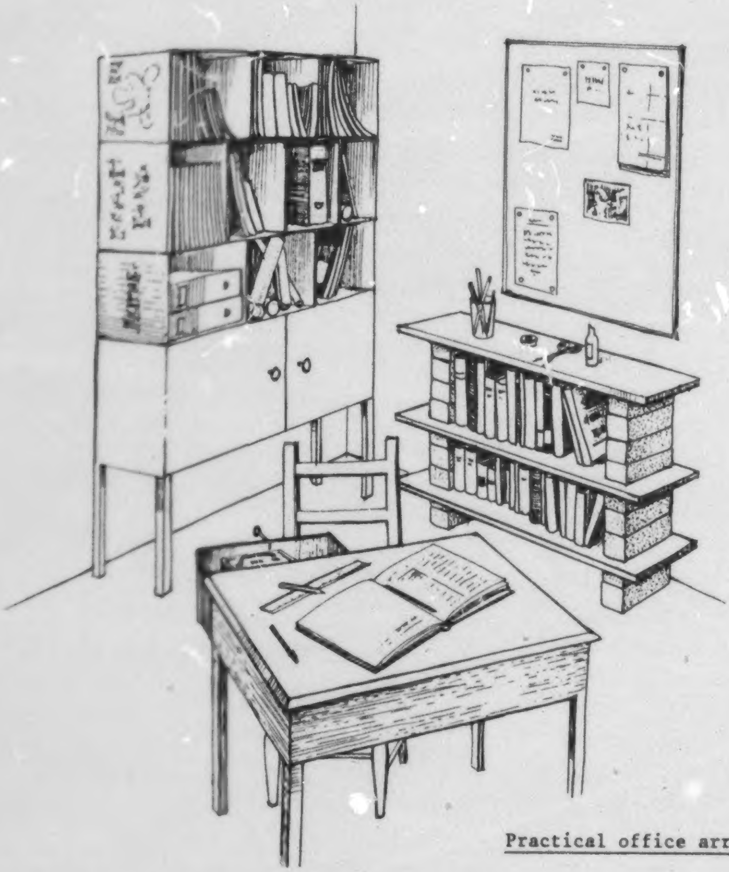
Some examples of common and necessary paper work in health activities

ACTIVITY OR FUNCTION	PAPERWORK
Correspondence (letter-writing)	
Patient problems	Patient-referral letters
Administrative problems	Letters to and from supervisors
Health care activities	
Patient attendance	Registration
Examination and diagnosis	Clinical records
Treatment	Laboratory register
Inpatient admission	Ward register
Discharge	Discharge letter/from
Special diseases	Tuberculosis/leprosy registers
Maternal care	Antenatal card
Child care	Child health card
Environmental survey	Reports forms
General activity	Monthly report form
Health education	Posters, leaflets
Staff management	
Staff problems	Staff files

Administration of funds and equipment

Ordering	Requisition forms
Storing	Stock ledgers
Issuing	Issue vouchers and Inventories
Funds	Cash books, receipts and petty-cash vouchers
Staff meetings	Minutes of meetings.

In some countries a family file combines several of the papers under Correspondence and Health care activities. Sometimes a health centre keeps records of the births and deaths that occur in its catchment area.



Practical office arrangement

Note: Bookcase made from bricks and planks of wood
Cupboard made from packing cases
Notice board from three-ply wood.

6.2 HOW TO WRITE OFFICIAL LETTERS

There is an internationally accepted way of stating facts in official correspondence. However, the exact place on a page where these facts are written varies from country to country.

Below are one correspondence format and an example of a letter written in this format.

Address (coming from)

Date/Month/Year

Reference No.

Name (to whom letter is written)
Address

Reference

Dear Sir/Madam/or title and surname,

Subject underlined

With reference to your letter dated... reference no. ... .
....

Final greeting (e.g., Yours faithfully)

Signature

Title and name, or name and qualification.
(Typed or clearly written in capitals).

Example of an official letter

The World's Best Health Centre
Village Super
DISTRICT XYZ

4th September 1979

Our Ref. 56

Dr Noit
District Medical Officer
P.O. Box 493
DISTRICT XYZ

Your ref. HC/VS/879

Dear Dr Noit,

Visit to the W.B. Health Centre

With reference to your letter dated 10th August 1979, we are glad to hear you will visit us towards the end of this month.

In answer to your question, I am pleased to tell you there is a guest-house, and we have reserved accommodation for you there.

Attached to this letter is a list of drugs and some few items which are in very short supply. If you could bring these with you that would help us.

Yours sincerely,

ABDULLAH MOHAMMED
(Senior M.A. in charge)

MAKE CARBON COPIES
OF ALL OFFICIAL LETTERS

How to write a letter referring a patient

When a patient is referred to a centre at a higher level for further advice and treatment, a letter should be sent containing accurate details. This information will help the medical officer who sees the patient to understand the history and background of the patient's condition and treatment to date.

The following rules are a guide to referral letter-writing.

1. Use the customary format as for official letters.
2. In place of subject heading write the patient's name and age.
3. State the actual date when the patient was first examined (do not use statements such as "one week ago", which may lead to confusion if there is a delay in referral).
4. State the approximate date (week or month) when the patient first became ill.
5. Give a summary of the main complaint, history and clinical findings.
6. Also give results of any laboratory investigations.
7. Most important, give full details of all treatment to date including doses of drugs.
8. Include a polite request for advice and treatment.
9. Sign the name and write the official title (e.g., medical assistant or nurse-in-charge) of the person referring the patient.
10. Write the patient's address, and the name and address of the patient's nearest relative, at the bottom of the letter.

Example of a patient referral letter

Maternity Clinic
World's Best Health Centre
Village Super
DISTRICT XYZ

11th September 1978

The Obstetrics Consultant
District Hospital
DISTRICT XYZ

Dear Doctor,

Name and age	Mrs Latuma Ally, age 30 years. (approx.)
Date seen	The above-named, who carries this letter, was first seen by me today, 11th September 1978.
	Although she is about 36 weeks pregnant (she does not remember her L.M.P.) she has not previously attended clinic.
Complaint Date of illness	She came complaining of swelling of the feet for the past 2 weeks (since the end of August). She has no other complaint.
Laboratory examination	On examination I found albumen in the urine and the blood pressure was 140/100 mm Hg.
Drug and dose	I have sedated her with phenobarbital 50 mg (x tab) for the journey.
	She seems to have pre-eclamptic toxaemia and therefore needs hospital admission.
Request	We send her, kindly requesting your further advice and treatment.

Thank you,

Yours sincerely,

Mrs Ainal Lunani
(nurse-midwife)

Patient's address and relative's name and address	Patient's address: Grocer shop Green Village DISTRICT XYZ	Relative: Brother:	Halfani Ally Shoemaker Green Village District XYZ

6.3 SETTING UP A FILING SYSTEM

As stated before, an office is concerned with the organization of paperwork. An office receives, stores and transmits pieces of paper of all types; they include letters, receipts, invoices, reports, patients' cards, minutes of meetings, pamphlets and leaflets, drug advertisements and many others.

Sometimes documents are piled on desks so that it is difficult to find anything. Often important documents are placed in an unknown file and are therefore lost. To make sure that any paper can be found whenever it is needed a filing system is set up.

A filing system is an arrangement by which different types of papers are placed in separate files. This enables them to be found again rapidly.

A good filing system has the following qualities:

There must be a place for every type of paper normally found in the health unit (an inclusive system).

It must be simple, so that staff members can maintain it (a simple system).

Papers must be found rapidly when needed (retrievability).

Filing arrangements (filing categories)

There are several methods of filing used throughout the world. These are:

(a) Alphabetical
(b) Numerical
(c) By subject
(d) Geographical

These methods can be used in health units in the ways that are described below. Often two or more systems may be used together.

(a) Alphabetical filing: The files are arranged in alphabetical order, according to the first letters of the main name of the staff member or patient. This system is used when there are large numbers of papers on similar subjects. In health services it is the most useful for staff files.

Each staff member has an individual file. In it are placed personal particulars, employment and salary particulars, leave dates, increment dates and any correspondence relating to personal problems.

(b) Numerical filing: Each person is given a number and the files/cards are then filed accordingly. However, a cross-reference file is needed in case, for example, patients lose their number cards.

(c) Filing by subject: This is the most useful for general purposes in small health units.

Make a list of all loose pieces of paper and establish a file folder for each subject category.

Here is an example of such a list:

Correspondence: *Correspondence about patients (copies of referral letters);*

Correspondence with supervisor or administrator (e.g., District or Regional Office at a higher level than the health unit);

All other correspondence (Staff correspondence, in staff members' files).

Funds and finance:
Requisition forms,
Receipts,
Issue vouchers,
Petty cash vouchers,
Inventories.

There is a file for each village, containing information such as names of leaders, dates of market, special problems, travelling times and distances, bus services, etc. This is particularly useful for supervising district work, e.g., mobile clinics or home visiting.

Arranging and indexing a filing system

Filing does not always achieve its main objective, which is

TO FIND ANY PAPER
ANY TIME IT IS NEEDED

This happens because papers are placed in the wrong file, or files are not arranged in any order, or files are not indexed.

An index is a list (usually alphabetical) that refers to the place where an item or article is found, e.g., a book has an index at the back, which refers to a page in the text where a subject is found.

A filing index refers to the name or number of the file or register where certain topics are recorded. Such a list can be typed and placed on a wall-board in an office. An example of a health-unit office index is shown below.

Office Index

Information	*Where placed*
Administrative letters	*General correspondence. Top shelf.*
Cash book	*Right-hand desk drawer*
Clinical records	*Box in outpatients' department (OPD)*
Correspondence	*Files, top shelf*
Discharge forms	*Ward table*
Inventories	*Store cupboard*
Issue vouchers	*Store cupboard*
Leprosy cards	*Box in OPD*
Monthly reports	*File second shelf*

Petty cash vouchers	*Right-hand desk drawer*
Receipts	*Store cupboard*
Requisition forms	*Store cupboard*
Stock ledger	*Store cupboard*
Tuberculosis cards	*Box in OPD*
Village information	*By name on Shelf 3.*

Registers or ledgers

Not all records in a health unit consist of loose papers. A number of items are recorded in large books usually called registers or ledgers.

Where to find health unit files, registers and ledgers

Files, registers and ledgers are best kept where they are used; e.g., the laborator register is kept in the laboratory, the admission register in the ward, the stock ledger and receipts file in the store-room or cupboard, correspondence in the office, and patients' files in the outpatients' department. But wherever they are kept they need a definite place on a shelf or in a cupboard where they can be found easily.

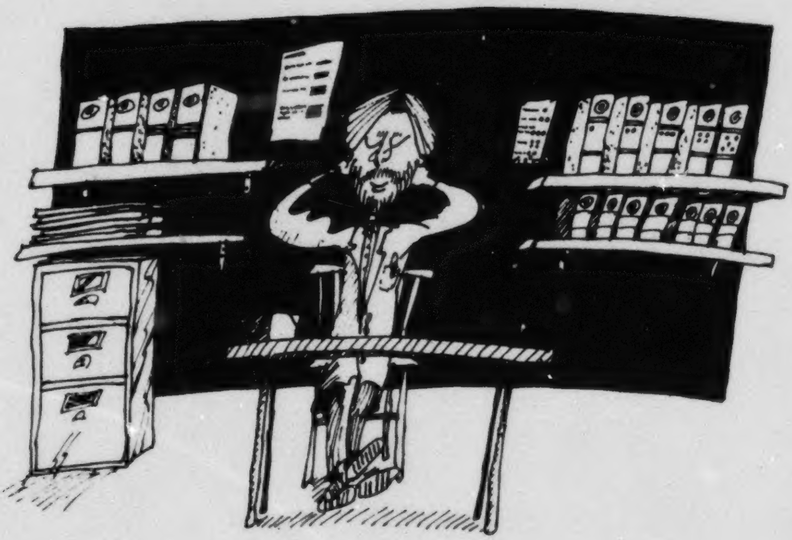
Where a number of files are kept in an office the shelves should be clearly labelled

The place where each document is kept is recorded in the office index.

Office accessories

In addition to documents there are office accessories, for which space must be provided on a shelf.

Office accessories include: stationery and envelopes, official forms, glue, scissors, sellotape, wrapping paper and string, pens, pencils and ink, stencils and duplicators.



A WELL ORDERED OFFICE MAKES LIFE EASIER

Exercises

Note: Exercises have not been prepared for Chapter 3. Teachers are recommended to prepare some themselves.

Chapter 1

Managing Equipment

EXERCISE A.1 Making cost-estimates for equipment

Objective: To make a cost-estimate for equipment and to revise it.

Individual

1) Read pages 149 and 150 Balancing requirements and resources, and Using a catalogue.

2) Using the items listed in Figure 1 below Sample catalogue page, make a cost-estimate for the following items:

   2 sphygmomanometers (desk model)
   2 dressing scissors blunt straight 127 mm
   2 dressing scissors blunt straight 178 mm
   2 dressing scissors blunt curved 178 mm
   12 scalpals
   100 tongue spatulas (50 wooden; 50 stainless steel)
   60 suture needles (30 half-circle triangle point; 50 curved)
   5 x 10 cm bowls (stainless steel)
   6 clinical thermometers
   3 rectal thermometers
   2 male urinals (stainless steel)
   6 dissecting forcepts (3 Ramsay, 3 Lane)
   1 dressing tray 40 cm

3) Write at least five criteria you would use when deciding what items to purchase (see *Example: Setting criteria for selection of equipment*, below).

4) Does the cost of the items selected in Step 2 exceed $150.00? If so, write another order which costs less than $150.00, giving priority to those items that meet the criteria you have listed in Step 3.

5) If you had only $120.00 to spend, list the items you would request in smaller amounts in order to keep within your budget.

Example: Setting criteria for selection of equipment

To decide which equipment to order, the health worker in charge should:

1. *Set criteria for each piece of equipment needed, on the basis of cost, use, durability, ease of cleaning/sterilization, etc. For example, criteria for weighing-scales in a child health clinic would include:*

   - *light weight*
   - *portable, i.e., easy to move from one place to another*
   - *easily cleaned*
   - *accurate*
   - *graduated to 50 g*
   - *rust-proof*
   - *not above average price.*

2. *List criteria in order of priority. Thus, accuracy would be the most important requirement for weighing-scales.*

Figure 1 (for Exercise A.1)

Sample catalogue page

Cat. No.	Price	Quantity	Description
AC100-01-Q	26.40	Each	Desk model sphygmomanometer
AC200-01-C	20.70	Each	Hospital model sphygmomanometer
AD300-01-L	65.40	Set	Diagnostic
AD325-01-T	100.80	Set	Diagnostic complete
BB250-01-A	4.20	Each	Dressing scissors blunt straight 127 mm
BB256-04-G	5.35	Each	Dressing scissors blunt straight 178 mm
BB260-01-F	4.20	Each	Dressing scissors sharp straight 127 mm
BB265-04-J	8.40	Each	Dressing scissors blunt curved 178 mm
BF450-01-T	4.65	Each	Scalpel No. 1
LK180-01-T	0.45	50	Wooden tongue-spatula
LK170-01-N	3.00	Each	Flat tongue-depressor stainless steel
SA045-01-V	0.61	6	Half-circle triangle-point suture needle size 1
SA100-01-J	0.52	6	Curved suture needle size 1
TE105-10-V	1.05	Each	Clinical thermometer, stubby bulb
TE125-10-G	1.30	Each	Rectal thermometer
TE280-10-Y	2.65	Each	Male urinal polypropylene
TE280-05-G	19.60	Each	Male urinal stainless steel
TC075-04-S	5.95	Each	20 cm bowl stainless steel
TC100-03-M	4.35	Each	20 cm bowl propathene
TC075-01-L	2.80	Each	10 cm bowl stainless steel
TC075-03-Q	4.20	Each	15 cm bowl stainless steel
TC100-02-K	3.70	10	15 cm bowl propathene
TC100-01-H	2.25	10	10 cm bowl propathene
BE005-01-E	2.25	Each	Dissecting forceps serrated 127 mm
BE005-03-J	3.30	Each	" " " 178 mm
BE010-05-W	9.40	Each	" " " 146 mm
BE025-01-Q	13.75	Each	Ramsay dissecting forceps serrated 178 mm
BE180-01-H	5.50	Each	Lane " " " 127 mm
TC030-01-S	7.80	Each	Dressing tray 30 cm
TC030-03-W	11.50	Each	" " 40 cm
TC035-02-R	8.50	Each	" " 25 cm
TC035-05-X	14.50	Each	" " 35 cm

EXERCISE A.2 Surveying equipment needs and ordering equipment

Objective: To survey equipment needs for a health centre.

Individual or sub-group

1) Read pages 146 - 150.

2) Obtain the inventory from your health centre. If there is no inventory, write one (see page 153 on the basis of information from the health centre staff, and having noted the type and quantity of equipment at the health centre.

3) Check the non-expendable equipment in stock against what is listed in the inventory. If necessary items are missing from the list, include them.

4) When you have checked the inventory, list the following:

   a) equipment that should be discarded (because it is not used, or cannot be repaired, etc.)

   b) missing equipment

   c) equipment in need of repair.

5) Repeat Steps 2, 3 and 4 for expendable equipment.

EXERCISE A.3 Ordering equipment from a catalogue

Objective: To prepare an order for equipment, using an equipment catalogue.

Sub-groups

Allocate separate sections of a health centre to sub-groups, e.g. outpatient, maternity, laboratory.

1) Using an equipment catalogue, write a sample order for the expendable and non-expendable equipment that is missing from the selected section of the health centre. Follow the procedure out-lined in Exercise A.1. above, and the example on page 152.

2) Add up the cost of the equipment you have ordered.

EXERCISE A.4 Storing and controlling equipment

Objective: To record receipt and issues of items ordered and to calculate balances in stock ledger.

Individual

1) Read pages 151 - 155.

2) Study the example of a ledger balance on page 152.

3) Using the sample stock ledger page in Figure 2 below, record the receipt on 5.3.1979 of the items listed in Exercise A.

4) Record on the same sample-ledger page that the items listed below were issued on the same date:

1 rectal thermometer
1 sphygmomanometer
2 dressing scissors, blunt straight 127 mm.

5) Calculate the balance of equipment remaining in stock.

Figure 2 - Sample page of stock ledger

	Catalogue No. of Item	Received from	Invoice No.	Invoice No.	No. Recd.	No. Issued	Balance in Stock
3.1.79	-	-	-	-	-	-	3
5.3.79		Government store					
"		"					
"		"					

EXERCISE A.5 Preparing equipment inventories

Objective: To write inventories for expendable and non-expendable equipment in a health centre.

Individual or sub-group

Allocate sections of the health centre as in Exercise B. A student or sub-group is assigned to each section for this exercise.

1. Read example on page 228 and review Exercise A.2 on page 230.
2. Write separate inventories for expendable and non-expendable equipment for the section of the health centre assigned to you.
3. Ask the health worker in charge to review the list for accuracy.
4. Indicate a suitable place to keep the inventory so that it is not lost.

Chapter 2

Managing drugs

Managing drugs is one of the most important functions of a health worker, for without an adequate supply of the right drugs many patients cannot be treated correctly. The drug supply at a health centre must be monitored closely so that the necessary drugs are available when needed and in adequate amounts. Also, both patients and staff need to be instructed in the proper use of drugs so that they are not wasted. The following exercises are designed to help the trainee health managers to learn to improve drug management.

EXERCISE B.1 Preparing standard drug lists

Objective: To prepare standard drug lists for special purposes and to modify existing lists.

Individual

1) Select a village in the catchment area of your health centre, which employs a village health worker (VHW).

2) Read Chapter (2) section (2.2) on preparing and modifying a standard drug list, and review the example of a standard drug list on pages 165 and 166.

3) Set criteria for selecting drugs for use by a VHW (See *Example 1*, below).

4. Prepare a standard drug list suitable for use by a VHW (i.e., satisfying the criteria set in 3).

Sub-group

5) Read Section 2.3, page 166.

6) From a knowledge of the population of the village and the disease pattern of the area, estimate the quantities of at least three main drugs to be used by the VHW during a six-month period.

Large group

6) From the data you have obtained in Steps 4 and above, discuss the following questions for each village selected:

(a) Has any important drug been omitted from the list?

(b) Has the VHW been trained to give these drugs safely?

(c) What particular points about these three main drugs would you emphasize in training VHWs to administer them safely and effectively?

Example 1: Criteria for selecting standard drugs

Drugs selected should be:

- *safe in the hands of a VHW*
- *effective against specific conditions*
- *cure or relieve most common conditions*

- *acceptable to the population (non-toxic)*
- *the cheapest variety, (provided it meets the required standards of safety and effectiveness.)*
- *manufactured in the country.*

EXERCISE B.2 Preparing a drug list for a mobile clinic

Objectives: To make a list of drugs and equipment for a mobile clinic visiting a remote area once a month.

Individual or sub-group

Take as an example a mobile clinic, staffed by the health centre, that visits a remote area one day each month. Its main function is maternal and child care, but the staff should be prepared to treat minor ailments, injuries, and emergencies. The population of the area, its age distribution and its common problems are known.

1. Prepare detailed lists of drugs and equipment that you think you should take for use in the mobile clinic. One list should be prepared for each of the following purposes

   - maternal care (antenatal and family planning).
   - child care (including treatment and immunization), and
   - minor ailments and injuries.

   Check your lists against *Example 2* below.

2. Exchange the prepared lists and review a list prepared by another sub-group.

3. Make a combined list from the separate lists prepared in Step 1, so that all items are included and none repeated.

4. Discuss the following questions about this remote village:

   (a) What else can be done for this community?

   (b) What types of conditions and emergencies are you likely to meet?

   (c) What drugs would you recommend to treat the conditions identified in question (b)?

Example 2 for Exercise B.2

A one-day clinic will be held in village Y, in an area remote from the health centre. The purposes of this clinic will be the same as those described above (Exercise B). The population of the village is approximately 5 500, including 2 400 adults (more than 18 years old) of which 875 are women of childbearing age, and 560 children under 5 years including 120 under 1 year.

Maternal care	Child care	Minor ailments and injuries
Activities: antenatal care family planning	Activities: nutrition education immunization	Activities: Treatment for: wounds and fractures bites belly pains headache fever
Drug List: iron sulfate tetanus toxoid sulfadimidine vitamins Other materials contraceptives protein supplements	Drug List: vaccines: polio measles DPT BCG	Drug List: acetylsalicylic acid gentian violet penicillin phenobarbital benzyl benzoate aureomycin ointment oral rehydration packets piperazine mepacrine
Equipment List: educational materials for: - nutrition - breast feeding - hygiene - family planning - syringes and needles - patient register - tape measure - referral forms - sphygmomanometer - family planning equipment	Equipment List: weighing scales syringes & needles thermometers growth charts patient register	Equipment List: thermometer referral cards roller bandages swabs dressing sticking plaster razor splints scissors water glasses soap

EXERCISE B.3 Estimating quantities of drugs

Objective: To write an order for enough drugs, avoiding overstocking and understocking.

Sub-group

It is time to place an order for a six-month supply of drugs at the health centre. The order should be such that there will be neither too few nor too many drugs in stock.

1. Read Section 2.3. The example on page 166 is a model for this exercise.

2. Each sub-group chooses a drug used for a specific condition (e.g., mebendazole, an anthelmintic drug).

3. From the patient register or from the outpatient cards, count the number of patients treated during the past six months with the drug you have selected in Step 2.

4. Determine the average course of therapy with this drug for each adult and child, using the method described on page 166.

5. From the information obtained in Steps 3 and 4, estimate the amount of this drug used over the past six months.

EXERCISE B.4 Monitoring drug use at a health centre

Objective: To be able to decide if the amount of drugs used at a health centre is normal (i.e. not too much or too little).

Sub-groups

1. Read pages 172 - 175.

2. Each sub-group chooses one general drug (e.g., iron supplement) or a drug used for treating several different conditions (e.g., acetylsalicylic acid).

3. Review patient records at the health centre to determine how much of this drug has been used during the past six months, utilizing the same approach as in Step 3, Exercise B.3 above.

4. On the basis of total attendance at the centre over the past six months discuss the following questions:

   (a) Does the amount of drug used seem to be too much, too little, or as expected? Give reasons for your responses.

   (b) Was there a shortage or an excess of the drug available in stock?

   (c) Estimate the amount of the drug needed for the coming six-month period, using the example on page 166.

EXERCISE B.5 Ordering vaccines

Objective: To order vaccines according to planned target needs and storage capacity.

Large group and sub-groups

Vaccines must be ordered for an area to last a three-month period. The target is to immunize 80% of children under 1 year in the area against poliomyelitis, measles, pertussis, tetanus and diphtheria.

1. Study the catchment area of your health centre and divide it into sections, village groups, estates, or whatever population groups exist in the area.

2. Estimate the population of each section you have identified.

3. Each sub-group selects one section of the catchment area for study.

4. Find out the percentage of children under one year of age in the population, from census data or other sources.

5. Calculate from 2 and 4 how many children under one year are in the selected section.

6. As the target is to completely vaccinate 80% of these children, calculate the amount of each vaccine needed for the year. (Refer to the formula on page 166 for your calculations).

   (a) polio vaccine,.......

   (b) measles vaccine,.....

   (c) DPT vaccine, ...

7. As the health-centre refrigerator cannot hold a large supply, vaccines should be ordered in sufficient amounts for three-month periods. Divide the calculated amount of vaccine needed for one year by 4 to determine the amount needed for three months.

EXERCISE B.6 Comparing drug costs

Objective: To compare the costs of various drugs used for treating similar conditions.

Sub-group

Table 1 opposite shows some examples of brand-named drugs and their prices. These prices have been selected from a 1977 catalogue in a developing country. The local currency has been converted to US dollars ($). Four groups of drugs are shown in this sample: analgesics, antihistamines, penicillins and tetracyclines.

1. Each sub-group should select one drug group from the list given for study.

2. Read pages 163 and 164.

3. Draw a histogram (use the diagrams on page 169 as models) to show the cost of giving each drug from the selected group to an adult for five days.

4. Calculate the cost of treating 100 patients, for five days, with each drug from the selected group.

5. Select the cheapest and the dearest drug in the group and calculate the difference in cost of treating 1000 patients for five days with each drug.

Large group

6. Discuss the findings from the calculations of the sub-groups in steps 3, 4, and 5. How can these findings be applied to your health centre?

7. Repeat this exercise, using a national drug catalogue to obtain the prices of drugs used in your health centre.

Table 1 - Examples of Brand-Name Drugs and their Prices

Brand Name	Constituent	Average adult dose *	Number of tablets	Price in US dollars
		PENICILLINS		
Amoxile	Amoxycillin	250mg capsules 1 t.i.d.	15 capsules	11.40
Orbenin	Cloxacillin Sodium B.P.	250mg capsules 1 t.i.d.	12 capsules	6.80
Penbritin	Ampicillin B.P.	250mg capsules 1 q.i.d.	16 capsules	6.70
Stabillin V.K.	Penicillin V.B.P.	250mg capsules 1 q.i.d.	100 capsules	13.20
		TETRACYCLINES		
Achromycin	Tetracycline	250mg capsules 1 q.i.d.	16	4.20
Biomycin	Tetracycline·HCl B.P.	250mg capsules 1 q.i.d.	16	2.20
Ledermycin	Dimethylchlortetracycline	300 mg Tabls. 1 q.i.d.	16	15.30
Terramycin	Oxytetracycline	250mg capsules 1 q.i.d.	16	8.40
		ANTIHISTAMINES		
Actified	Triprolidine HCl & Pseudoephedrine	Tablets 2 q.i.d.	50	6.60
Phenergan	Promethazine HCl	Tablets 25mg 1 b.d.	50	3.60
Piriton	Chlorpheniramine maleate	Tablets 4mg 1 q.i.d.	50	3.20
Vallergan	Trimeprazine tartrate	Tablets 4mg 1 + i.d.	50	4.80
		ANALGESICS		
P.C.M.	Paracetamol	Tabs. 2 q.i.d.	100	2.30
Panadol	Paracetamol	Tabs. 2 q.i.d.	100	8.50
Rhodine	Acetylsalicylic	Tabs 1 q.i.d.	100	3.30
Polprin	Acetylsalicylic acid.	Tabs. 2 q.i.d.	100	1.50

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*Key to abbreviations

t.i.d. = 3 times a day
q.i.d. = 4 times a day
b.d. = 2 times a day (night and morning)
i.d. = once a day

EXERCISE B.7 Arranging the drug-stock system

Objective: To arrange a drug stock so that life-saving and commonly used drugs will not be out of stock.

Sub-groups

This exercise may be carried out in the drug store of a health centre.

1. Read Ordering and Stocking drugs on pages 168 - 171.

2. Write a list of life-saving drugs used in the health centre. See page 172 for an example.

3. Estimate the stock of emergency drugs needed for the health centre, using the same approach as that outlined in Exercises B.3 and B.4 above.

4. Arrange the life-saving drugs on a single shelf in the health centre's drug store in such a way that:

   they are easily obtained in an emergency; and

   it is easy to notice when supplies are low.

5. Label the shelf space for each drug.

6. Write out stock-balance cards for each drug, as described on page 171.

EXERCISE B.8 Stocking drugs

Objective: To stock drugs in such a way that the health manager is reminded to order fresh supplies in good time.

Large group

1. Read the material on the A/B System (two shelf system) on pages 172 and 173.

2. Write a list of all drugs commonly used in the health centre. Omit life-saving drugs since they have been dealt with in the preceding exercise.

3. Find out the usual purchasing interval (i.e., how often drugs are ordered) from the worker in charge of the drug store.

Individual or sub-groups

4. Allocate one or more drugs to each group or individual. Estimate the amount of each drug used during the purchasing interval.

5. Find out the supply time for each drug from the person in charge or the person responsible for ordering drugs. Can the A/B System as described on page 172 work in this health centre (apply the rule at the bottom of the page to determine if it can) ?

6. Divide the total amount of each drug received into two parts, and clearly mark them A and B, according to the needs of the health centre, as discussed on page 172.

(Note: B is the amount of the drug used during the supply time; that is, after A is used up and a replacement order is sent).

EXERCISE B.9 Interpreting stock cards

Objective: To identify the amount of drug used and discrepancies in drug consumption, from a review of stock-card balances.

Individual or sub-groups

1. Read pages 170 - 174. Answer the questions on page 171.

2. Obtain from the health centre a ledger or set of stock cards which shows intakes, outputs, and balances of drugs used by the health centre.

3. Select any common drug and study the corresponding drug stock card.

4. Write the answers to the following questions:

   (a) How much of the drug is used each week? each month?

   (b) Is the rate of consumption of the drug too high or too low when checked against treatment records? (see Exercises B.3 and B.4, above).

   (c) How much of this drug is used by different sections of the health centre, e.g., outpatient, maternity....?

   (d) Does the balance on the stock card correspond with the amount of the stock on the shelf?

   (e) Have you found any discrepancies? If so, list them.

Large group

5. Discuss the results obtained in Steps 3 and 4.

EXERCISE B.10 Analyse drug usage

Objectives: To examine factors that contribute to drug wastage in the health centre.

To identify alternatives for expensive brand-name drugs.

To interview patients to obtain information about their use of prescribed drugs.

To discuss ways of avoiding drug wastage by educating patients.

Large groups

This exercise should be carried out in an outpatient department or clinic where patients are given prescriptions for drugs.

1. Read pages 158 - 161 and 166 - 169.

2. Survey a number of drug prescriptions that have been written for patients attending the clinic. (The more prescriptions you can obtain for study, the better. Thirty is enough. You may need to collect prescriptions for several days in order to have an adequate number).

3. Count the number of prescriptions with more than two drugs. If the illnesses for which the drugs have been prescribed are known, consider if all the drugs prescribed are necessary.

4. Group the drugs prescribed according to a broad classification of use, e.g., analgesics, antibiotics, vitamins, antihistamines, sedatives.

5. Mark whether each drug has been ordered by brand name or by standard name.

6. Where possible, indicate an acceptable cheaper substitute for any expensive drugs prescribed (Refer to Exercise B.1. above).

EXERCISE B.11 Monitoring patients' use of drugs

Objective: To learn from patients how they use prescribed drugs, and to improve their understanding of correct drug use.

Sub-groups

1. Write a concise, carefully worded questionnaire to be given to a patient attending the clinic (see Example 3 below). This questionnaire should determine:

(a) if the patient understands how to use the prescribed drugs;

(b) if he believes the drugs will help his condition;

(c) if he appreciates the importance of taking the drug regularly and in the exact dosage ordered; and

(d) ... (see additional items on page 161).

Individual

2. With the same questionnaire, interview 5-10 patients after they have received drugs at the health centre. Explain that your purpose is to find out if patients understand how to take their drugs, and to help them to understand better the drug treatment.

Large group or sub-groups

3. Summarize the interview results from Step 2 and discuss your findings. Consider the following questions in your discussion.

(a) How does patients' understanding affect drug usage?

(b) How can patients' understanding of drug usage be improved at this health centre? The information listed on page 161 will help in your discussion.

Example 3

A patient has come to the health centre and has been given a supply of drugs. The next time he returns to the health centre, the health worker talks with him to find out if he understands what he was taught about taking his drugs and if he has met any problems while taking the drug at home. Questions such as those listed below will help the health worker to find out what he needs to know about how the patient is taking his drug at home. After the health worker finds out what the patient does not understand, he can teach him again about those items.

Questionnaire

1. What drug is being used to treat your condition?

2. Do you think that this drug will help you to get better?

3. How much of the drug do you take each time?

4. When (how often and at what times) do you take the drug?

5. How long will you continue to take the drug?

6. Explain to me why you must take ___ amount of your drug for ___ times a day during the next ___ days.

EXERCISE B.12 Modifying a standard drug list

Objective: to review and modify a standard drug list according to recognized criteria.

Large group

1. Read Section 2.2, pages 161 - 166.

2. Obtain any standard drug list used in your local treatment centre, outpatient department or health centre; or use the list on page 165/166.

3. Examine the list carefully and answer the following questions:

   (a) are more than one drug for a single purpose included on the list? (e.g., more than one analgesic or antihistamine)

   (b) Are there drugs on the list that are no longer used (e.g., antimonials for schistosomiasis are no longer used since there is now a better treatment).

   (c) Are there health problems in the area for which there is no suitable treatment on the standard list? (e.g., diarrhoea, but no oral rehydration mixture).

Sub-groups

4. Select one general group of drugs for study (e.g., antibiotics, anthelminthics, sedatives, etc.).

5. List criteria (standard requirements) for the drugs in the group you have selected, i.e. what standards must the drugs meet? List the criteria in a table such as the sample tables shown on pages 163 and 164. Be sure to include safety and low cost. To be certain of other important criteria for the drugs you have chosen, refer to a pharmacology textbook or another reference book on drugs.

6. Identify characteristics of several drugs among the group of drugs you have selected for study, again referring to a drug information source, such as a pharmacology textbook, to obtain accurate information.

7. List the drugs and their characteristics on the table you prepared in Step 5.

8. Identify the most suitable drugs for your health centre, using the decision-making method described on pages 162 and 163.

Large groups

9. Discuss why certain drugs were added to, or deleted from, your standard list.

Reading

1. Part III, Chapter 2.

2. A standard pharmacology textbook, reference book, or one of the prospectuses packaged with the drugs.

3. A price list for drugs, or a national medical catalogue.

4. Health centre drug ledgers, stock-cards, patient prescriptions.

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Note: Exercises have not been prepared for Chapter 3. Teachers are recommended to prepare practical exercises in managing money.

Chapter 4

Managing time

Introduction

The aim of time management is not to turn workers into robots who work without interruptions or breaks, nor is it to develop rigid routines. Rather, the aim is to organize and arrange the use of time so that time pressures and overcrowded schedules are reduced, and that staff can have adequate rest periods without lowering work output.

If forced to work under continuous pressure, people devise means of escape such as by taking days off for illness or slowing down their pace and becoming inefficient. These ways of relieving pressure may be observed among staff in an average overcrowded out-patient department. It has been repeatedly shown in industry that regular breaks increase work efficiency and work output.

EXERCISE D.1 Self-assessment of time use

Objective: To assess and analyse the role of interruptions at work.

Individual or sub-group

For this exercise, the senior health staff should show a willingness to assess their own use of time. Refer to Example 1, below.

1. Read pages 186 - 189.

2. Ask a senior health worker to assess his own use of time after you have explained the procedure to him.

3. In columns across a sheet of paper, write down all the activities that are not related to work and that might take place during the course of a working day (e.g., relaxing in staff room or canteen, personal telephone calls, going out to shop, reading a newspaper, tea or coffee breaks, arriving late, leaving early, interruptions by other staff). See Example 1 below.

4. Give copies of the papers to staff members who have volunteered to take part in this exercise. Ask them to record the number of minutes spent on each activity not related to work over a period of one or more days.

5. Collect the records and add up the minutes spent on non-working activities each day by each staff member.

Large group

6. Request all staff members who agreed to record their non-work activities to meet together to discuss the results.

7. Give the group the totals from Step 5 above without revealing the identity of the staff members who provided the data.

8. Discuss the following questions with the group:

(a) Is the amount of time spent in non-working activities reasonable, too much, or not enough?

(b) Would it be better to have recognized time breaks (e.g., 30 minutes for tea, shopping, reading the newspaper, or chatting) rather than having many unofficial breaks?

(c) Would recognized or official breaks, i.e. at different times so that the work did not stop, improve the quality of the work?

9. List the recommendations decided by the group for each of these questions.

Example 1. Self-assessment of use of time

Miss Smith - Monday							
Non-work activity	Time spent in minutes						Total time
Coffee break	25	20					45 min
Late arrival	10						10 min
Early departure	15						15 min
Relaxing in staff room	5	5	5	5	5	5	30 min
Personal 'phone calls	15						15 min

This health worker spent 115 minutes (1 hour and 55 minutes, or about one-fourth of her time) of an eight-hour working day in non-work activities. Perhaps if the health centre allowed two coffee breaks of 15 minutes each, one on the morning and one in the afternoon) she could plan to have her coffee and relaxation in the staff-room at the same time, thereby saving almost an hour each day for her work.

A good manager will check to see how the staff members are using their time and will plan rest periods on a regular basis to help to keep the staff happy and increase work output.

Note: Time-use assessment findings must be interpreted carefully, with full consideration for individual variation in the use of time. For example, a worker may arrive late and also depart late, reduce the amount of time spent on rest periods or meals, work late on certain days, etc.

EXERCISE D.2 Observations of the use of time

Objectives: To assess whether the tasks performed by health workers in the health centre are making the best use of their skills.

To delegate responsibilities to health workers that will make the best use of their skills.

Individual

All health workers perform skilled and unskilled work. For example, a nurse may serve tea or a medical assistant may do clerical work. A good manager tries to arrange work so that each person uses his skills to best effect. Less-skilled work is delegated to people who are not trained in the skills needed for some health tasks.

1. Read pages 186 - 189.

2. Accompany one health worker throughout one full working day. Observe the health worker's activities.

3. Note each activity of the health worker and record the time in minutes spent in each (see Example 2, below).

Sub-group

4. Group the observed activities into skilled and unskilled work.

5. Note the time spent in each activity and calculate the total time spent in skilled and in unskilled work.

Large groups

6. Arrange a meeting between the "observers" and the "observed". Discuss the following questions:

   (a) Is work distributed in such a way that the best use is made of the health workers' skills?

   (b) Could redistribution of unskilled work improve the use of skills?

   (c) Is more delegation needed? Is so, what should be delegated and to whom?

Example 2 - Assessment of use of skills

Medical Assistant Activity		Time in minutes for each of a series of child patients				
1	Weigh child	3	4	5		
2	Examine child	10	3	5		
3	Explaining treatment to mother	2	10	4		
4	Waiting time between patients	15	6	1		
5	etc.					

Activities 2 and 4 are skilled activities that can be performed only by the medical assistant at this health centre. Activity 1 requires less skill than do activities 2 and 4. Therefore, activity 1 could be delegated to another staff member, such as a health aide, who is less skilled than the medical assistant.

The registration and reception procedures in this child care clinic should be studied in an effort to reduce the waiting time between patients, which wastes the medical assistant's time (Activity No. 4).

EXERCISE D.3 Time proportions at work

Objective: To analyse the proportions of time spent on different aspects of work.

Individual

These exercises can be performed by health workers in any work setting or by full-time students in school.

1. Read pages 186 - 189.

2. List the main functions carried out in your health work. (For example, a health inspector or sanitarian might include the inspection of shops, markets and latrines; maintaining water supplies; and controlling mosquitoes).

3. Number these functions you carry out according to priority (e.g., the priority functions of the health inspector might be: (i) to main water supplies; (ii) to control mosquitoes; etc.).

4. Each day for one week, record the time in minutes spent at each function. (A record similar to that in Exercise B. can be used for this step).

5. Using the example on page 188 draw a line diagram showing the total time you spent at each function.

6. Review the diagram and the list you prepared in Step 2 and ask yourself:

   - Does the proportion of time spent on the work correspond to the importance or priority assigned to the work?

   - Can the proportion of time spent on these activities be changed or should it be changed? How?

EXERCISE D.4 Time proportions at study

Objective: To analyse the proportions of time spent on different aspects of study.

Individual

1. Read pages 186 - 189.

2. Write a list of your main school activities (for example, attending lectures, examining patients, library work, study time, laboratory, writing tests, etc.).

3. Using the example on page 188 make a line diagram showing the total time spent on each activity.

4. Ask yourself:

   - what is the proportion of time spent in practical work to time spent in reading and listening?

   - should I change my use of time so as to improve learning.

EXERCISE D.5 Making time arrangements

Objective: to write a timetable for all the health activities of a health centre.

Sub-group

1. Read pages 190 - 196.

2. Obtain a copy of the timetable for the health centre, or a unit of the health centre laboratory, maternity, etc.).

3. Refer to the sample list of regular activities on page 190. Write a similar check-list of all the activities of the unit or the health centre for a week or a month Obtain this information from the staff, the person in charge, and your own observation.

4. Survey your check-list to be sure that all activities are included, e.g.,

   - staff meetings

   - equipment inspection

   - hygiene inspection

   - record keeping (statistics, reports, recording...)

   - education activities (lectures, discussions)

   - follow-up clinics

- home visits etc.

5. Examine the timetable of the health centre. Are all the activities you have entered in your check-list included there? Are all the activities mentioned that you have not included in your check-list?

6. If there is no timetable for the health centre or unit, write one for a one-week period (refer as necessary to the sample health centre weekly timetable on page 190).

EXERCISE D.6 Study of travel time

Objective: To calculate the proportion of travel time to work time in district health work, and to discuss ways of reducing the proportion of travel time to work time.

Large group

Any health centre that does district work of any kind (family planning, health education, home visiting, supervisory visits, mobile clinics etc.), whether on foot or by bicycle, bus or a motor vehicle, can be used for this exercise.

1. Read pages 193 - 196.

2. List all the district activities carried out by your health centre during a one-month period. Refer to the weekly timetable, and consult the person in charge and other staff to obtain this information.

3. Interview all staff members who travel. Ask them:

   (i) How much time (in hours and minutes) they spend travelling in carrying out district activities.

   (ii) How much time they spend at health work apart from travelling.

4. Calculate the proportions of time spent in work and in travel for each travelling health worker, using the examples given on page 190.

5. Arrange a meeting between the travelling health workers and your study group.

6. Discuss the following questions at the meeting:

   - are there other means of transport available that might be tried in an effort to reduce travel time?

   - could travel routes be changed?

   - could health workers visit the village less often and stay longer or could they stay overnight?

   - could other methods be used to reduce travel time? (see page 194 for suggestions).

7. List the recommendations made by the group to reduce the proportion of travel time to work time.

EXERCISE D.7 Making schedules

Objective: To write a schedule for follow-up visits to villages for a three-month period.

Schedule for follow-up visists

Health-centre staff make home visits to three outlying villages (A, B and C) for follow-up purposes. Each village is reached by a separate road. It is possible to visit each village and return to the health centre in an afternoon. There are six staff nurses, each of whom visits homes on different afternoons each week.

Individual

1. Read pages 193 - 196.

2. Using the examples of the schedule on page 194 write a schedule for a three-month period showing how each village could be visited twice a week by the staff nurses.

(Note: The route numbers in this example do not apply in this exercise).

3. Examine your final schedule to see if it meets the criteria required:

   (a) Is each of the three villages visited twice a week?

   (b) Are the visits scheduled on regular days so that people will know when the nurses come?

   (c) Does each staff nurse do home visiting no more than one afternoon per week.

EXERCISE D.8 Inspecting equipment

Use the inventory check-list prepared in Exercise A.1, or use an inventory check-list available at your health centre.

Objective: To prepare a check-list for supervision.

Individual or sub-groups

1. Refer to Example 2 on page 196.

2. Write an inspection schedule for checking expendable and non-expendable equipment at the health centre for the coming three-month period.

EXERCISE D.9 Preparing and testing a duty roster

Objective: To write a duty roster for nurses that provides coverage for nights during the week ends.

The health centre needs a duty roster for a three-month period.

Individual

1. Read pages 196 - 198, (Section 4.4).

2. Using the example on page 198 design a roster for a three-month duty period

(June, July, August) that meets the above requirements for each of the following situations:

(a) there are eight full-time nurses available;

(b) there are seven full-time nurses available;

(c) there are eight nurses available full-time, but two will go on leave during August.

3. Examine your final rosters to make sure that the criteria listed on page 197 are met.

4. Test each nurses schedule. Would you be satisfied to work the turns of duty you have arranged for her?

EXERCISE D.10 Making year plans

Objective: To draw up a planned overview of the outstanding events in a coming year.

Large group or sub-group

1. Read pages 201 and 202.

2. Obtain a supply of ruled paper, or draw 31 lines on paper, similar to the example shown on page 202.

3. List the important activities or events for the coming school-year (include dates of terms, leave, examinations, graduation and social events such as outing, dances, sports events.).

4. Make a year plan for the school, using the example provided on page 202.

5. List important events for a health centre for one year. Include public holidays, dates of visits, lectures or campaigns, leave-dates of senior staff, times of annual reports, requisitions, stock-taking, auditing, etc.

6. Using the ruled sheet of paper, and referring to the example on page 202 make a year plan for the health centre.

Individual

7. List important personal or family events for yourself. Include birthdays, feast days, leave, dates for income tax and insurance premium payments, dates for licence renewals or any other important dates which you need to consider and plan for and do not want to forget.

8. Make a personal year plan for yourself on a sheet of paper.

Reading material for exercises in Chapter 4.

1. Part III, Chapter 4.

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Chapter 5

Managing Space

Introduction

The purpose of exercises E1 and E2 is to look critically at the organization of the equipment of a health centre, how the staff functions, and how the movement of patients is organized. Sometimes these arrangements are the best possible ones in the circumstances and should not be disturbed. Often, however, in outpatient units and clinics there are serious obstructions to work-flow, which could be removed or reduced with a little thought and analysis. The effective manager thinks about the work setting in the health centre and tries to ensure that the arrangement of people and things is the best possible in the circumstances.

Exercises E3 to E9 are designed to help the trainee health-worker manager to know his district well and to organise services efficiently.

EXERCISE E.1 Work-flow arrangements

Objective: To identify signs of poor working arrangements.

For these exercises, a situation where a health service activity is taking place in the normal way (e.g., an outpatient, unit or parts of it such as the treatment room or maternity clinic) should be chosen.

Sub-groups

1. If the unit or area to be examined is large, sub-groups should choose different parts of it for the exercises; or one group can examine the arrangement of people (staff and patients) and another the arrangement of equipment.

2. Read pages 203 - 208. Study carefully the examples on page 204 and the suggestions on pages 205 - 208.

3. Observe the activities in the area you have selected for your observation. List any signs of poor work arrangement in relation to:

(a) People

Are there queues?

If so, what is the average waiting time?

Are many people - staff members or patients - sitting around waiting?

Is it difficult to examine patients because of too much noise?

Are there any "cross-currents", i.e., people moving in opposite directions obstructing each other?

Do any staff members have to keep walking about to find equipment for their work?

Are some staff members waiting because others have borrowed their equipment?

Are there any movements, queues or groups interfering with the work or obstructing passages?

(b) Things

Are there materials and equipment that seem never to be used?

Are the materials that are in use within easy reach of the people who use them?

Are there two or more people using the same equipment and having to wait for each other to finish before they can go on with their work?

Do staff members always return objects to the same place so that they can easily be found again?

Is every object kept in a definite place?

Large groups

4. Compare the findings of the various sub-groups on work-flow. Do the signs found show that there is a problem that needs to be dealt with?

5. List what could be done to improve the working arrangements.

EXERCISE E.2 Diagnosing defects in working arrangements and suggesting remedies

Objectives: To assess the functioning of a health care unit and suggest means of improving work-flow.

A similar situation should be used as for Exercise E.1.

Large group

1. Read pages 203 - 208 and use Exercise E1 above as a model.

2. List each task of the work situation selected for study. For example, a children's clinic would have such tasks as registering, weighing, examining, treating and vaccinating children; and advising and educating mothers.

Individual or sub-group

3. Examine each task listed and answer the following questions:

(a) Are there signs of poor work organization (refer to Exercise E.1).

(b) Is the equipment needed for the task available and in good repairs? If not, why not?

(c) I[illegible]e staff working systematically and effectively? If not, what are some sourc[illegible] trouble?

(d) What factors, if any, are causing delay or queues?

Large group

4. Study each task in relation to other tasks:

- Do some tasks take longer than necessary and hold up other tasks (e.g., delay in completing forms at the reception desk could cause the medical assistant to be idle between his examinations of the children?)
- Does this group consider that the work-flow could be improved?

Sub-groups

5. If the group considers that the work-flow can be improved, sub-groups should be given the following tasks:

(a) Equipment changes

List what could be done:

- to order missing equipment;
- to repair damaged equipment;
- to rearrange equipment so that it is readily available;
- to put the work area in good order; and
- to maintain the functioning and arrangement of the equipment so that the work may continue smoothly.

(b) Changes in work performance

List your suggestions in relation to:

- additional staff that may be needed;
- whether volunteers can be trained for some tasks;
- whether the staff should have further training to improve their performance; and
- how improvements in work performance could be maintained.

(c) Changes in work arrangements

Describe any changes that could be made in work arrangements for this unit, such as:

- assigning specific days for certain kinds of patients (e.g., Wednesdays for tuberculosis patients);
- packaging drugs or supplies;
- preparing stocks of duplicated written instructions to patients to avoid rewriting;
- conducting discussion groups to make patient teaching more effective and efficient; and
- health education of patients in groups.

Large group

6. Discuss the suggestions in Step 5. Determine which of these suggestions is feasible in this health centre.

7. Write a report on the functioning of the unit, make constructive suggestions for improvement, and discuss it with the person in charge.

EXERCISE E.3 Using maps

Objectives: To use maps effectively in district health work;

To identify the population distribution of a health-centre catchment area using a map of the area.

Individual or sub-groups

1. Read pages 208 - 213.

2. Identify the main villages, towns or estates from which the patients come to the health centre. (Obtain this information by questioning the health centre staff or patients and by studying record cards and attendance registers.)

3. Outline the catchment area of the health centre on your copy of the map.

4. List the names of the main centres (towns, villages, estates) and the population of each one. Information on population may be obtained from village leaders, district officers, etc.

5. Decide on symbols for different sizes of population, such as:

less than 1 000 = 0
1 000 - 10 000 = Ø
more than 10 000 = -θ-

Make a key explaining these symbols on a corner of the map. Mark the symbols on the map to show the different population groupings.

6. Make an estimate of the population of the area served by the health centre by adding up the population of all the places identified.

Take a health centre or district hospital responsible for health care over an extended area and willing to cooperate.

Before the exercises, the group leader or teacher should obtain maps of the catchment area (from e.g., the district officer or government land office). An outline of the area selected for study should be traced from the official map and then duplicated so that each student may have several unmarked copies for the several exercises.

EXERCISE E.4 Mapping environmental health factors

Objective: To identify environmental factors that affect the health of people and record them on a map.

Individual or sub-groups or large group

1. Determine the symbols you will use to illustrate the various items listed in Steps 2, 3, and 4 below and list the key on the map. The examples on page 213 provide suggestions.

2. Mark in all the water sources (rivers, dams, wells, springs or piped water).

3. Select symbols for rich and poor areas and main occupations such as factories,

estates or farming areas. Identify these areas on the map and mark them with the corresponding symbols.

4. Use symbols to show the distribution of sanitary facilities such as latrines and sewerage systems.

EXERCISE E.5 Mapping health hazards

Objective: To identify any features in the area that may be a danger to health and mark them on the map.

Individual or sub-groups or larger groups

1. By means of a tour of the area and talking with patients, villagers and health centre staff, find out what are the features of the area that may be a danger to health. Are there swamps in which mosquitoes breed, or rice-fields or canals that cause the spread of schistosomiasis? are there occupational hazards?

2. Decide on symbols to identify these health hazards and enter them on the appropriate places on the map.

EXERCISE E.6 Mapping the distribution of prevalent diseases

Objective: To identify places that have special diseases or health problems.

Individual or sub-groups or large group

1. From interviews with the health centre staff or a review of patients' records, list the common diseases in the area that are treated at the health centre.

2. By studying records and questioning staff and patients, find out if any of these diseases are more common in any particular places in the catchment area. For example, children with malnutrition or gastroenteritis may come from poor places with no sanitary facilities. Some diseases are prevalent in lowlands and do not occur in highlands.

3. Determine symbols for the common diseases.

4. Mark on the map where the special diseases occur. Are there obvious reasons for the prevalence of the disease in these areas? (Refer to the maps drawn in Exercises E1, E2, and E3 to help you to answer this question.)

EXERCISE E.7 Mapping health services

Objective: To identify all other health services in the area.

1. List all other health services in the area, e.g., private practitioners, mission hospitals or clinics, other voluntary hospitals, village health workers, traditional healers and various company and estate dispensaries.

2. Select symbols to represent the various services.

3. Enter the symbols on the map with coloured pens, to show where the services are located.

EXERCISE E.8 Mapping roads and railways; recording travel information

Objective: To identify the most suitable routes and modes of transport for health service purposes in an area.

1. Mark on the map all connecting roads. Use a different type of line for each type of road, e.g., tarred road, dirt road, footpath, etc.

2. Using different symbols, mark bus routes and railways.

3. On a separate sheet, list all the places visited by the health service. For each place state how far it is from the health centre, theusual mode of travel to reach it, and the time it takes to reach it from the health centre by the different modes of travel.

EXERCISE E.9 Preparing a schedule of visits to outlying places

Objective: To use a map to arrange a visiting schedule.

1. Find out all types of supervisory visits conducted by the health centre in the area, e.g., supervision of village health workers, home visiting, health education, school health, family planning.

2. List all these visits.

3. From the list you have prepared in Step 2, the map completed in Exercise E6 above, and the guidelines for planning schedules on pages 193/194 make a schedule for supervisory visits which is economical in the use of staff, fuel and time.

Reading: Part III, Chapter 5.

Chapter 6

Managing Paperwork

Information is the 'food of management'. Without information, no management can occur.

Information processing is paperwork. An office is a place where paperwork is done. These exercises are concerned with methods of selecting, collecting and recording, storing, retrieving and communicating information by the health unit office through paperwork.

EXERCISE F.1 The selection, collection and recording of information

Objective: To use a check-list to systematize administrative records.

A health service unit responsible for keeping records on equipment and drugs should be selected for this exercise.

Large group

1. Read pages 215 - 225.

2. Make a list of the types of administrative (non-clinical) paperwork that might be needed in a health centre. The example on pages 216/7 lists some common and necessary kinds of paperwork.

Sub-group

3. Find out the types of administrative paperwork done at the health service unit you have selected for study and answer the following questions about each:

(a) Is the type of information needed in the health service?

(b) Is it used by health staff? Can any of it be omitted because of duplication or non-use?

(c) Are the records clearly written and filed in order, so that the information in them can be easily retrieved?

(d) Are all records dated?

(e) Are the records kept in a designated place?

(f) Are there omissions? Are some important records lacking?

Sub-group

4. Examine the stock ledger for equipment and drugs. Are the balances calculated? Do the balances agree with the actual stock available on the shelves? (Refer to page 152 Keeping a ledger balance.

EXERCISE F.2 Examining clinical records

Objective: To use a check-list to examine clinical records.*

Any outpatient clinic or special service that keeps patients' records is selected for this exercise.

Large group

1. Read pages 216 and 217.

2. Write a list of all types of clinical records that you know about (laboratory register, attendance register, etc.) An example of such a list can be seen on page 216.

3. List the types of clinical records in use at the clinic you have selected for study.

Sub-group

4. Examine each type of record (or certain selected records) for the following:

   - Is the information specified on the form useful for health care purposes?
   - Can any information be omitted because it is not useful?
   - Is there some type of information which could be useful but which is not recorded; i.e., has important information been omitted?
   - How are the records kept, e.g., in a card, ledger, file?
   - What is the information used for? For management, follow-up research?
   - Are the records clear, i.e., can essential information be quickly identified on the record? Are the records easy for staff members to complete?
   - Do any staff members need retraining in how to keep these records, e.g., do you see several errors or omissions?
   - Are the records accurate?
   - Do the records give guidance on management decisions?

Large Group

5. Discuss sub-group findings from Step 4. List changes that the group as a whole would recommend to improve management of clinical records for the health centre.

6. Discuss the recommendations with the worker-in-charge to find out which improvements can be made.

EXERCISE F.3 The storage and retrieval of information (the filing and index system)

Objective: To systematize the filing system and to establish or review an index file. The place in a health unit where paperwork is stored is used for this exercise.

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* The critical examination of clinical records is an important part of a health manager's work.

Large group

1. Read pages 222 - 224.

2. List all the types of document that are kept in the health unit (e.g., those listed on pages 216 and 217.

Sub-group

3. Make a check-list to examine the filing of these documents:

- Has each document its own file?
- Has each file a number or name?
- Are the documents filed in order and dated?
- Is the system easy to follow?

4. Examine the books (ledgers and registers) used by the centre for recording information.

- What type of information is recorded in these ledgers and registers?
- Are these documents in order?

5. Find out if there is an index file system. If not, establish one by writing against the list of documents and books the place where they are kept. The example of an index file system on page 223 can be referred to for this step.

EXERCISE F.4 Using a filing system

Objective: To file correspondence and to communicate information in reports to the health centre staff.

The place in the health centre where paperwork is stored is used for this exercise.

Sub-group

1. Read pages 222 - 224.

2. Find out from the health-worker-in-charge how the correspondence of the health centre is filed.

3. List five pieces of correspondence you wish to read.

4. Exchange the list with another sub-group's list. Try to retrieve the corresondence on this list. Can you find it? If not, can the filing system be improved?

5. From the correspondence on file, make a list of the information that is included in reports from the health centre (e.g., attendances at centre, disease patterns in the area, etc.).

6. Suggest how this information could be useful to the health centre. For example, an increase in disease incidence could be used to plan activities to reduce the disease; low attendance during the harvest could indicate that a mobile clinic should visit the villages at this season, etc.

7. Suggest ways of communicating this information to the staff. Could a monthly

newsletter be circulated, could a large graph be placed on a wall, or could periodic meetings of the whole staff be held?

How could this information be used to improve the ways of providing a service?

Reading: Part III, Chapter 6.

* * * * * *

Part IV

Managing Primary Health Care Services

INTRODUCTION

A health worker is responsible for the health care of a population in a geographical area. This area may be as small as a village or as large as a district but, whether small or large, there are always problems to be overcome in delivering health care.

In Part IV the concepts of management as outlined in Parts I, II and III are applied to the health care of a community. The health worker with management duties must work closely with the community in planning and implementing the health programme; therefore, before discussing management, it is necessary to consider in more detail:

- how to manage primary health care in the community, and
- how to increase health coverage by developing community self-help programmes.

Working in the community

The various components of the health system discussed in Part III (e.g., money, time, people, and equipment) are resources that enable health workers to apply their skills and bring health care to the community.

The health worker attached to a health centre has a special responsibility to support the village health worker, and at the same time to be the link between the worke at village level and the central or regional level.

The newly appointed health worker, particularly if he has management functions, must first get to know the people and find out as much as possible about their problems and needs from the other health workers and the community leaders of the area.

Many of the problems may not be health problems as such, but more important, like poor housing and malnutrition, may cause health problems. Some such problems may have to be referred to other sectors, such as education or agriculture. Others can be solved by the people themselves with help and suggestions from the health workers.

Most countries have a national health plan or a number of national programmes such as maternal and child health and communicable disease control (e.g., leprosy, tuberculosis). The ministry of health sets general policy and specifies the general objectives of programmes that have to be implemented at the middle and primary levels. These general objectives must be broken down into smaller objectives and targets. For example, a national objective may be to control poliomyelitis. A programme objective may be to reduce the incidence of paralytic poliomyelitis by 50% and a target may be "to immunize all children under two years of age against poliomyelitis, that is three million children, in two years from 1.1.1979 to 1.1.1981". At the district level the target is broken down to the number of children under two years in that district, which may be 5000 At the primary level, the figure of 5000 must be broken down to cover several villages, perhaps 1000 children in one village, 500 children in another and so on until the area is covered. Each primary health worker will have a small target in his own area. The total of several smaller areas will make up the 5000 children to be immunized in the district.

Increasing health coverage

A major problem in many countries is that a large number of families have no access to health care or are not covered by the health system. How can one primary health worker in a village provide health care for many people, especially those who live farther than 10 or 20 km away? One way is to work with the community and use community resources, so that for a number of tasks a community can take care of itself with support from the primary health worker, who visits the community from time to time. The village people will refer the sick or those who need more skilled care and advice to the primary health worker or the nurse at the dispensary or health centre.

The health worker in his management role increases health coverage by training and supporting primary health workers and in other ways promoting health coverage of the public.

Example of increasing health coverage in a community

Maria, the primary health worker at San Canto, knows that many small children are undernourished. She talks to people in the community and learns that many women have stopped breastfeeding their babies because powdered milk is available and "is very good for babies". Maria, however, knows that no milk is as good as breast milk for small babies. Also she knows that the mothers do not have the necessary knowledge or the hygienic conditions to prepare powdered milk properly. The mixture may be contaminated with dust and flies, or be too weak or too strong, so that the babies suffer from diarrhoea and lose weight.

Maria wants to change this but she is alone. She wants to encourage women to breastfeed. She discusses the problem with her supervisor, who helps her to make a decision. After much thought Maria visits the three communities for which she is responsible and talks with the community leaders. They introduce her to women in the community who are breastfeeding their babies successfully. Maria talks with the women and, after discussion, each community chooses a leader from among these women. Maria works with the women leaders. They learn how to answer questions, how to listen, how to use a flannelgraph, how to make up stories, so that they can teach others.

The women leaders then invite the mothers with sick babies to come for a discussion. For the first few talks Maria joins the group, helping women leaders with teaching the importance and the value of breastfeeding.

As time goes by, changes occur: more women breastfeed their babies. Meanwhile the women leaders, with Maria's help, learn more about child feeding and health care, simple first aid, signs of illness and certain treatments. They teach these things to other people.

From this small beginning, health care is extended to many families. The people would not have got help if they had to rely on the health worker alone, and Maria could not have done so much without the community's help. Now she can give more time to very sick people, organize immunization campaigns, and give antenatal care to pregnant women with health problems. The women leaders refer people - men, women and children - to Maria if they need more advanced care.

Planning and implementing a health programme

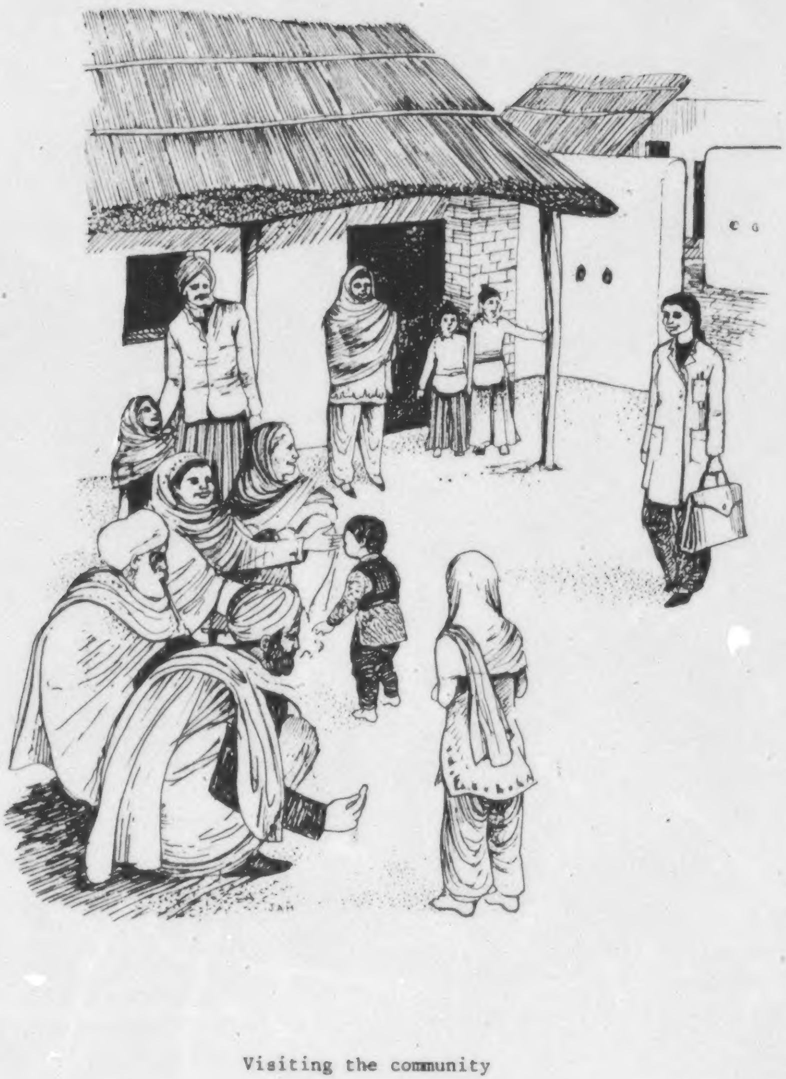
The health worker with management duties plans his health work systematically in five steps, as follows:

1. analyses the situation,
2. identifies and selects priority problems,
3. sets objectives and targets,
4. reviews obstacles/limitations,
5. writes the plan;

and then implements the programme in the following three steps:

6. coordinates the health programmes,
7. monitors the health programme and redirects it when necessary,
8. manages a supervisory programme.

To explain how these steps in management may be carried out examples illustrating problems facing 'Mrs Shireen' in bringing maternity care to women in a mountainous district are provided in various chapters in Part. IV.



Visiting the community

IV.1

Chapter 1: Planning health activities

Note: The learning objectives for this chapter are given at the beginning of each step.

CHAPTER 1

PLANNING HEALTH ACTIVITIES

Planning begins as an idea, or because attention has been drawn to a particular situation.

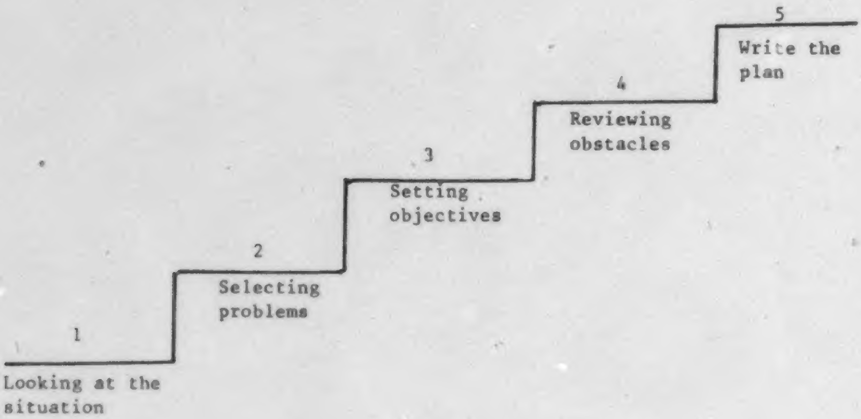
Planning a programme can take place at any level of a system. Usually, however, the general policies and guidelines of a health system are laid down by the ministry of health. The role of the middle-level system is to interpret policies at local level, plan their implementation, and see that they are implemented.

During the daily round of work, planning takes place continually. Planning methods can be applied to a large programme such as a national malaria programme or to a small one such as health education in a village.

As we have seen in the Introduction to this Part, there are five planning steps, as follows:

1. Look at the situation - collect the facts
2. Select the important problems
3. Set objectives and targets
4. Review obstacles and limitations
5. Prepare the plan.

STEPS IN PLANNING HEALTH ACTIVITIES


1
Looking at the situation
2
Selecting problems
3
Setting objectives
4
Reviewing obstacles
5
Write the plan

STEPS IN PLANNING

1.1 LOOKING AT THE SITUATION
↓
1.3 Selecting important problems
↓
1.3 Setting objectives
↓
1.4 Reviewing obstacles and limitations
↓
1.5 Making the plan

LEARNING OBJECTIVES

After studying STEP 1 and practising the instructions under supervision on pages 346/347 the health worker should be able to:

- gather information from the community
- identify useful information from records
- analyse and interpret information
- tabulate cumulative data
- review existing health work
- collect information on resources.

1.1 STEP 1: LOOKING AT THE SITUATION

For purposes of health planning information is required about:

- health, diseases and illnesses;
- the community (population, births and deaths, age groups, housing, schools, leaders, organization, etc.);
- organization of the health service;
- health staff;
- other resources.

Some of the information needed for health planning is obtained from other sectors such as the education or agriculture ministry (see examples).

Management information must be

- of the right kind (relevant to the purpose)
- in the right amount (enough and not too much).

Much of the information needed can be obtained from records and reports. This is usually formal or official or published information.

A second type of information - informal information - is obtained from the community, not from official sources. But this informal, information is probably the most useful at the middle level of a health system. It is particularly important when planning health programmes. One can learn much from contact with different groups - community leaders, teachers, traditional health workers, women's groups. These are resource people who can indicate a community's needs and often uncover the underlying cause of a problem that may not always be apparent to the health worker. For example, when mothers of young children, despite sustained interest in nutrition education, fail to practise what they have learned, the reason may be that the grandmothers, who are often heads of households, have a strong traditional approach to childrearing and feeding.

Methods of gathering information are:

- listening and observing in the community;
- discussing with community leaders;
- talking with other development workers, teachers, religious leaders, agricultural workers;
- talking with traditional healers or other health workers;
- reading the records of clinics or health centres;
- studying maps, census figures, district figures, special reports, survey data, national health policy documents, and annual reports or programme reports.

The following table shows the types and sources of information that may need to be collected about a community and its health problems and needs.

Table 1: Types and sources of information

TYPES	SOURCE
INFORMATION FROM THE COMMUNITY ON PEOPLE'S HEALTH	
Why problems have occurred. The kinds of traditional health care available. Attitudes and customs concerning health and illness.	Listening and observing in the community. Talking with people.
ON HEALTH WORK BEING DONE	
What the people feel about the work. What the people feel they need.	Listening to the community, particulary the leaders. Talking with other community development workers.

TYPES	SOURCE
ON THE COMMUNITY	
Attitudes and customs relating to matters other than health, e.g., communication between leaders and people. Who are the leaders in the community? Who makes decisions and how are decisions made? Are there traditional health workers such as birth attendants, healers, a medicine-man?	Listening to and talking with people in the community. Reading material, if available. Talking with other health and development workers. Talking with teachers and religious leaders.
Other health and health-related agencies	
Geographical features	
Transport facilities	
Public facilities: water, sanitation, market, school, farming, food production.	Map of area.
Source of water	
INFORMATION FROM RECORDS - TO IDENTIFY PEOPLE	
Name, age, sex, address.	Registration cards Health centre records Community survey.
- ON PEOPLE'S HEALTH	
Kinds of health problems and when problems occurred.	Monthly reports. Outpatients records.
Number of expectant mothers attending antenatal clinics.	Clinic records
Number of births each month or each year (live and stillbirths) and sex	Clinic records or survey of children under one year in the community
Number of mothers who died from childbirth in past year.	Clinic records or direct questionning in the villages.
Number of deaths by sex, age and presumed cause.	Possibly, health centre records or through community officials.
- . ON HEALTH WORK BEING DONE	
Number of people seen each month and why.	Monthly report.
Treatment given, kinds of health problems.	
Special campaigns held.	
- ON MATERIALS USED FOR HEALTH WORK	
Drugs supplied.	
Drugs used.	Stock ledger and inventory.
Other supplies.	
Estimate of supplies needed for a period of time.	

TYPES	SOURCE
- ON THE PROGRAMME AND ON OTHER HEALTH WORKERS UNDER SUPERVISION	
Programme: what people feel they need acceptance of programmes other programme needs coordination with other agencies	i.e. Listening to the community, particularly the leaders. Talking with other community development workers. Supervisor.
Health workers: needs for training quality of work planning relations with community and other agencies use of resources.	Supervisory check-list for visits to the community.

Collecting baseline information

Baseline information should be collected when health services are to be provided for the first time in a community. It enables management to decide what kinds of health activities are needed and to calculate the number of people who should receive different kinds of health services. Also, it enables progress to be measured at intervals after service after services have been introduced.

Such baseline information would include:

- people's names, sex and addresses
- birth date or approximate age
- occupation
- length of time living in the village
- number in family and their relationships
- number of births in the past year
- number of infant deaths/stillbirths in the past year
- probable causes of deaths
- most common communicable diseases
- whom people call or consult when they are sick
- geography of the area
- water supply sources
- excreta disposal practices
- foods available and used, and the methods of preparation and storage
- infant feeding and care practices.

This information may be collected in different ways. Village leaders may be able to give some information, but a survey of the people in the area may be necessary to find out all that is needed.

A survey may be made by talking with the people in each house in the area, or, if this would take too much time, in every fourth or fifth house. Volunteers from a village are often used by health workers to assist in collecting information. The volunteers must be told why and how the survey is being done, and which information to collect. The village leader may advise on the choice of volunteers.

An example of a survey form is shown below.

Example: Village Survey Form

1. *Household personal information (for each household surveyed)*

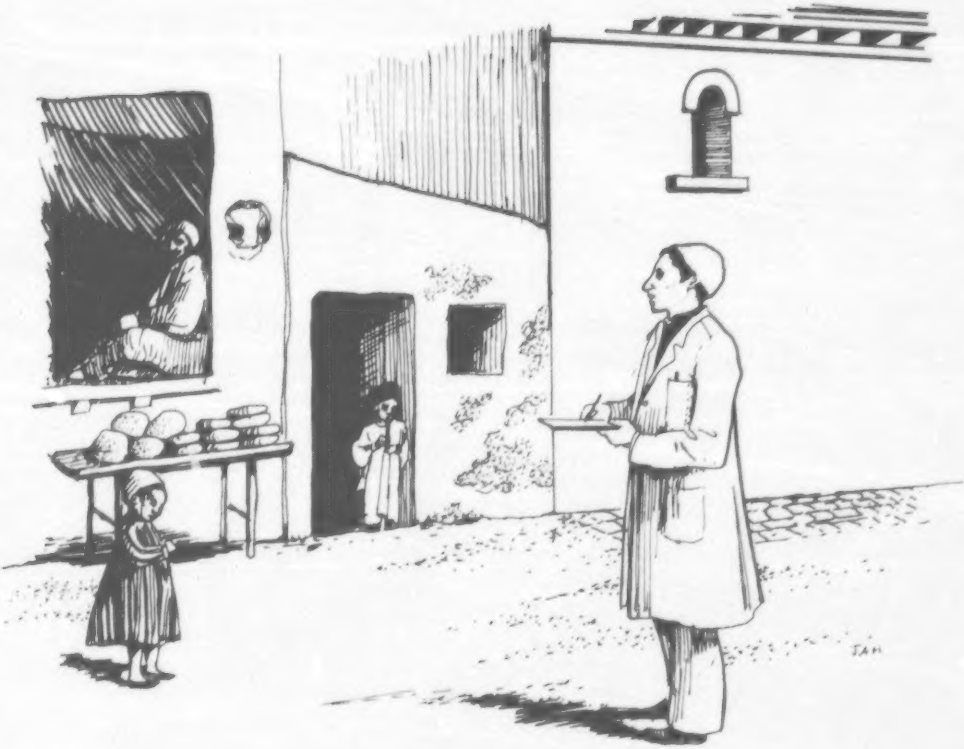
Family name	First names	Sex	Birthday or Approximate Age	Family Relationship	Occupation	Location	Length of time in village

2. *Health and health-related information (for each household surveyed)*

Number last year of:			Probable causes of deaths	Whom they call when sick	Water source	Excreta disposal method
Maternal deaths	Infant Deaths	Stillbirths				

3. *General information about the village*

Foods available	Foods Used	Food preparation & storage methods	Infant feeding & care practices	Transport geography



"Who lives here?"

(making a survey)

Information about resources

It is important to collect information about resources. A resource may be thought of as anything that can be used to carry out activities to achieve an objective (see Part I, Chapter 1, page 23).

Resources are not only money. For example, in gardening, the climate is a resource; in building a hotel for tourists, the situation or the view is a resource.

When choosing a course of action, all types of resources must be reviewed systematically, one by one. The main types of resources are:

1. People: trained people, skilled people, or others who are concerned with health care services.
2. Buildings e.g., dispensaries, health centres, rural hospitals.
3. Equipment, material, transport.
4. Information: books and methods manuals, records and reports, community studies, surveys.
5. Social and other environmental factors: public opinion, government support, technical resources (e.g., electricity), climate.
6. Money: needed to obtain other resources (such as equipment or transport).
7. Time: there must be enough time to operate the plan.

Collecting information to explain the cause of a problem

Information may have to be collected in other ways to help in understanding why a problem occurred. Thus, a supervisory visit may be needed to see why there is an increase in diarrhoea, as shown by the monthly report. Questions like these might need to be considered:

Do the people understand the reason for good hygiene and sanitation?

Are there attitudes and customs that would cause the problems?

Is the water supply safe? If not, why not?

Are the people using the latrines that have been built? If not, why not?

Answers would give information that would lead to a more accurate interpretation of the data found in records.

From information gathered, the health worker-in-charge can plan ways to solve problems or to modify programmes.

Looking at the health work being done

It is useful to make a list of targets that have been achieved, e.g., the number of children immunized, as well as those that have not been met.

The opinion of the community should be noted. Are the people participating fully in certain programmes? Are they satisfied with the work being done? Are they applying what they learn, what the health worker teaches? What are the obstacles? Can obstacles be removed or reduced? Should targets be changed?

Example: Target achievement review table

Programme	*Target met*	*Obstacles*
MCH - Antenatal care	*No*	*Lack of transport to mountainous area*
Communicable disease control - diarrhoea	*Latrine - yes* *Health education programme completed*	*Attitudes of village people*

(All other programmes to be listed)

REVIEW INFORMATION

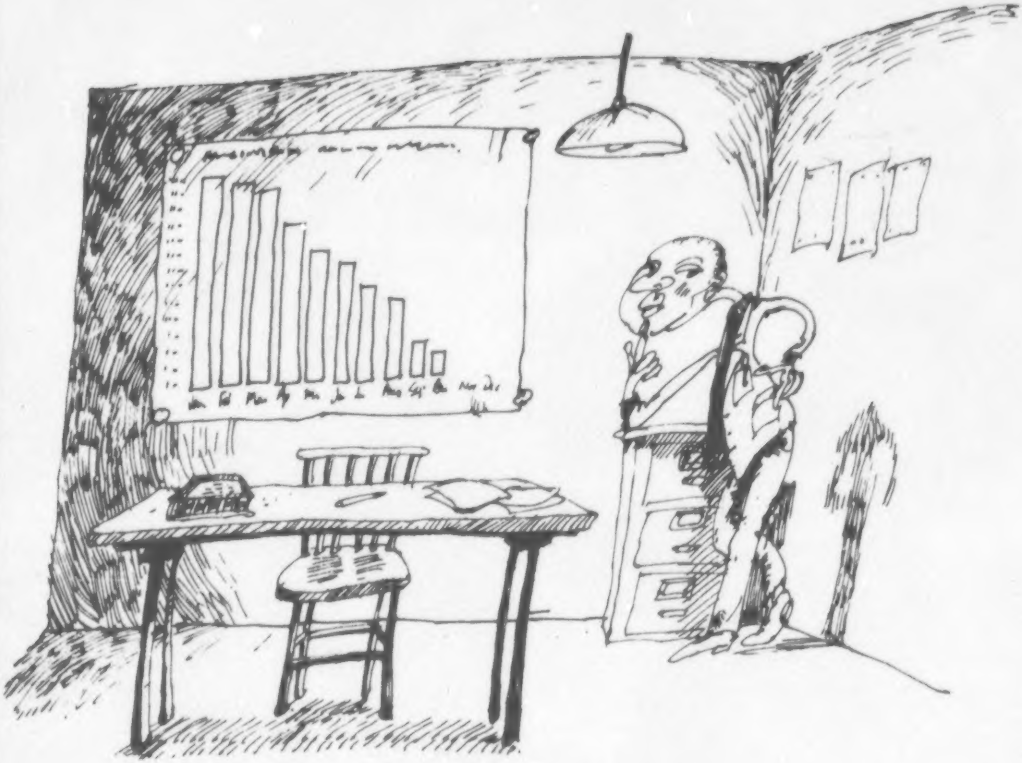
Recording cumulative information by tabulation

Information collected daily can be accumulated by adding the data for each month throughout the year. In this way a health worker can see, continuously, how each programme is progressing, and where and why targets are not being met. This information is very useful in making the health plan for the area for the following year.

Analysing information

It is not enough to collect information. It must be analysed and digested.

Information must be selected so that only useful information is considered, arranged in such a way that it can be compared with other information (standardized), recorded so that it can be remembered and found again when needed, and communicated to others who need the information.



"What happened to that programme?"

SUMMARY STEP 1

- LOOK AT THE WHOLE SITUATION
- UNDERSTAND THE COMMUNITY
- LOOK AT EXISTING HEALTH SERVICES
- STUDY THE RESOURCES
- ANALYSE THE CAUSES OF PROBLEMS
- RECORD AND TABULATE RESULTS

STEPS IN PLANNING

1.1 Looking at the situation

↓

1.2 SELECTING IMPORTANT PROBLEMS

What is a problem?
The importance of defining problems
How to select important problems
Check-list (criteria) for selecting important problems
Examples of problems
The district of Vosokcham

↓

1.3 Setting objectives

↓

1.4 Reviewing obstacles and limitations

↓

1.5 Making the plan

LEARNING OBJECTIVES

After studying STEP 2 the health worker should be able to:

- identify and list problems in the community
- select important problems according to criteria
- recognize problems which are the responsibility of other agencies outside the health service.

1.2 STEP 2: SELECTING IMPORTANT PROBLEMS

What is a problem?

Here are two useful definitions of a problem:

- *A problem is a difficulty or obstacle seen to exist between a present situation and a desired future objective.*

- *A problem is a perceived gap between what is and what should be.*

It is important to recognize that people look at (perceive - feel about) problems differently.

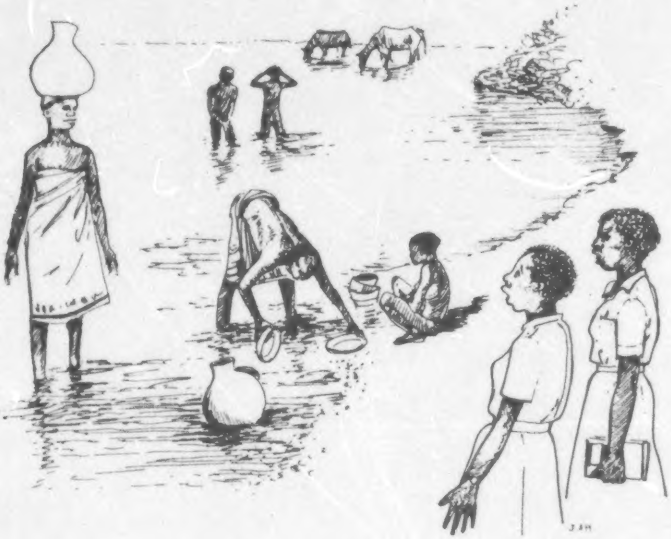
For example:

A village has a contaminated water supply, which may be resulting in outbreaks of diarrhoea.

That is a situation.

If the villagers do not recognize that the water is contaminated or that it is responsible for diarrhoea, then, to the villagers, this situation is not a problem.

But the health worker 'sees' or 'perceives' the gap between what is and what could be. This gap is a problem, to the health worker.



A 'problem' as seen by a health worker

It is important to define a problem clearly; otherwise an attempted solution may be wrong. Many health problems have several causes. It is easy to mistake a cause for a problem; then one cause may be removed without solving the problem.

Consider the following:

1. Many people have diarrhoea
2. The well-water is contaminated
3. There are too many flies
4. The sanitation is poor
5. The people need health education.

Which is the problem?

The problem is 'many people have diarrhoea'. Statements 2, 3 and 4 are possible causes of the problem.

If the problem is stated as 'sanitation is poor', and the effort at solving the problem is concerned only with improved sanitation, the diarrhoea will NOT disappear. It may be spread by flies or contaminated water.

In analysing problems:

define what the problem is
find all possible causes of the problem
look for ways to remove causes.

To select important problems is useful to group all the problems under the following headings:

Diseases or health problems
e.g., Malaria
Malnutrition
Repiratory diseases
Diarrhoea

Health service problems
e.g., Insufficient drugs
Lack of qualified personnel
Difficulty in visiting outlying areas

Community problems
e.g., Inadequate water supply
No primary education
People have to go a long way for health care
Poor harvest two years running
Male population leaving the land to work in industry

The health worker is always faced with more than one problem at a time and cannot solve all of them at once. So the problems are studied and the most important are given priority; i.e., these problems will be tackled first. Resources will be used mainly for these problems.

When attempting to select priority problems one must look carefully for the real causes especially for purposes of health programme planning. Many health problems could best be cured by more and better food, clean water, education, and solid safe housing. When seeking information it is important to look also outside the health field.

One way to determine problem priorities is to set criteria. A criterion is a principle or a standard by which one can measure or judge something. A set of criteria may be listed to form a check-list such as the following:

Does the problem:

- affect large numbers of people, e.g., malaria, leprosy?
- cause high infant mortality, e.g., malnutrition, neonatal tetanus?
- affect maternal health, e.g., complications of pregnancy, multiple pregnancies, post-partum haemorrhage?
- affect children and young persons, e.g., tuberculosis, road accidents, home accidents?
- cause chronic conditions and handicap, e.g., blindness, trachoma, poliomyelitis?
- affect rural development, e.g., river blindness, sleeping sickness?
- cause worry to the community?

If the answer to any of the above questions is YES, the problem is a priority one.

A problem may receive priority attention also if there is a simple way to deal with it.

Example of a list of Community Problems (applying Step 2)

After reviewing all the information available a number of problems will emerge. A typical list might read as follows:

Diseases and health problems

Malaria
respiratory infections
diarrhoea
complications of pregnancy and labour
eye infections
insect and snake bites

low birth weights of infants
leprosy
tuberculosis
hepatitis
skin infections
ear infections
malnutrition
(and so on, according to the area).

Other problems that may emerge:

Communications

Bad roads
seasonal bad weather
avalanches, etc.

inadequate transport
flooding

Health services

Health personnel do not go out to the community
lack of material for dressings and treatments
insufficient staff
insufficient drugs
inadequate working conditions
lack of transport.

Other problems affecting health

Illiteracy
lack of sanitation
contaminated water supply
bad and overcrowded housing.
rodents, and animals roaming freely
drought
unemployment

To choose priority problems from the above list apply the selection criteria on page 280 the more important problems will become obvious, e.g.,:

Health problems

- Complications of labour
  - Low birth weight of infants
  - Malnutrition

Health service problems

Insufficient visits to the community
Lack of transport.

Community problems

Lack of sanitation.

Note: Many problems are outside the health sector but are important because they affect health. The health worker can get health education of the people as a priority, to inform them about those problems and teach them how to prevent and overcome them. He may cooperate with the teacher in the school, or with the literacy programme, to prepare material so that people learn about health at the same time as they learn to read.

Contaminated water or, in some areas, lack of water are not problems the health worker can tackle alone. He can get in touch with the responsible people and cooperate with them. He must consider all this when hemakes a plan of work. This may include, e.g., education of, and participation with, the community in a latrine-building programme or water conservation in the home.

The District of Vosokcham

Nurse-Midwife Shireen has collected and analysed information in this district.

She notes that complications of pregnancy and delivery are high on the list of problems. She knows that the government is concerned about the number of women dying during childbirth, as well as the number of children born dead or dying soon after birth.

The national objective to reduce maternal mortality by providing antental care and increasing health coverage of pregnant women is being emphasized at the middle level of the health service throughout the country.

After deciding that complications of pregnancy and delivery are priority problems in her district Nurse/Midwife Shireen begins to organize an antenatal programme.

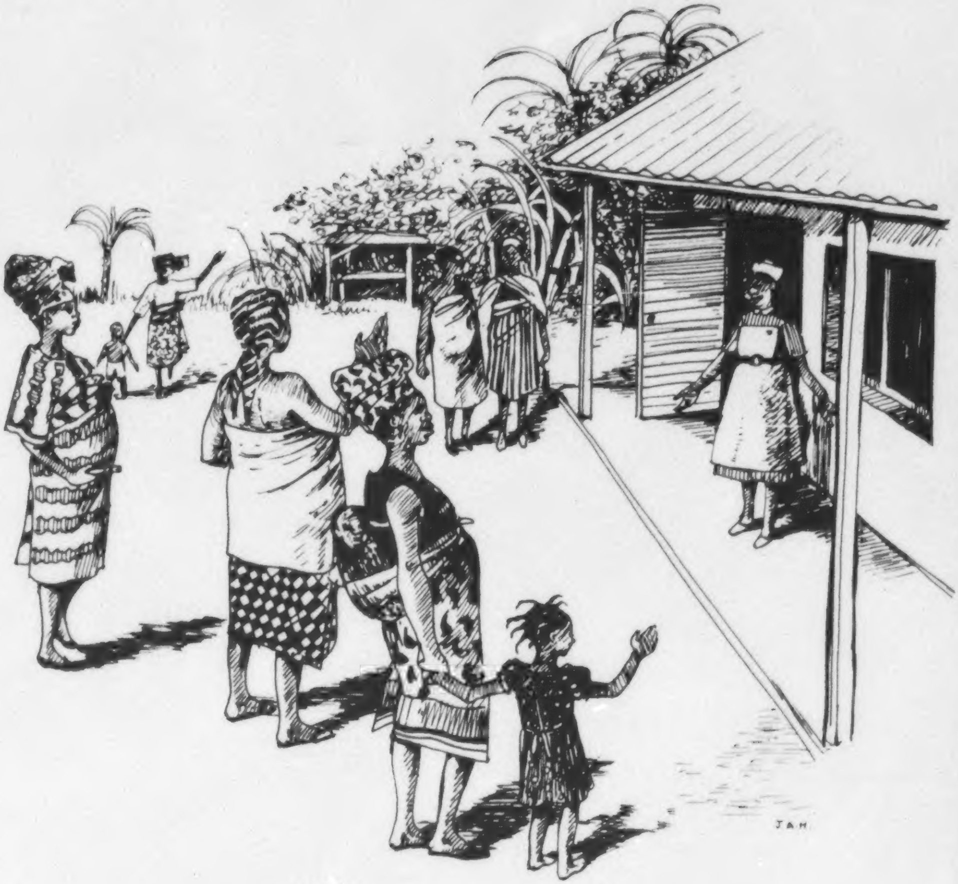
The district of Vosokcham is divided into three health sectors: "A", "B", "C". She begins in Health Sector "A".

Note that the approach taken closely follows that taken by Maria in the example given in the Introduction to this Part: that is, she includes the community in planning and programming, as explained in the following chapters.

SUMMARY

AT THE COMPLETION OF STEP 2 THERE SHOULD BE A LIST OF THE IMPORTANT PROBLEMS OF THE COMMUNITY

- CLEARLY DEFINED - WITH POSSIBLE CAUSES, OR
- ANALYSED IN ORDER OF IMPORTANCE.



Encouraging women to have antenatal care

STEPS IN PLANNING

1.1 Looking at the situation
↓
1.2 Selecting important problems
↓
1.3 SETTING OBJECTIVES

Definition of an objective
Why set objectives?
Characteristics of useful objectives
Objectives stated at different levels of the health system
Examples of setting objectives
↓
1.4 Reviewing obstacles and limitations
↓
1.5 Making the plan.

LEARNING OBJECTIVES

After studying STEP 3 the health worker should be able to:

- write programme objectives
- specify measurable targets
- set objectives that are relevant, feasible, measurable and observable.

1.3 STEP 3: SETTING OBJECTIVES

Having selected priority problems and taken account of the resources available - money, people, equipment, drugs and material - the next step is to decide how far the problems can be reduced or whether they can be solved. Many health problems cannot be solved quickly. They need several combined activities to deal with them, because they concern people.

Setting objectives is a positive step towards improving health. An objective states a definite expected result. Often treatment and care are given year after year, but little or no improvement is seen or known in the community's health because the health activities have had no clear objectives. By setting objectives, what is done can be continuously assessed, and at the end of a determined period can be evaluated, i.e., the achievements of the programme can be measured and a judgement made about the value of the programme.

An objective may be defined as follows:

> *An objective is the intended result of the achievement of a programme or activity.*

There are two important reasons for setting objectives. One is that a clear objective is essential to a definite plan.

If you say "I am going East", no definite travel plans can be made. But if you say "I am going to Shanghai", then a travel plan can be drawn up, e.g., bus from village to town, rail from town to port, boat from port to Shanghai.

You may say "we will improve health", but no definite plan can be made from that. But if you say "We will extend health care to cover the total population by 1985" then a plan can be drawn up to try to achieve that goal. Long-term objectives such as to control or eradicate a communicable disease, e.g., measles, or to reduce the infant mortality rate, require that a number of intermediate objectives necessary to achieve the main objective must be stated. Short-term objectives to be achieved by a specific date as a step towards a long-term objective are sometimes called 'operational objectives'.

The other reason for setting objectives is to enable results to be evaluated.

When the objective of a programme is not known the result cannot be evaluated. Without an objective it is not possible to know if work is achieving any purpose.

Thus, if the objective of a child health programme is to decrease infant mortality within a given period, then to evaluate the programme it will be necessary to measure the degree of reduction of the infant mortality rate within the determined period. If the objective is to reduce the number of cases of measles by 50% the result can be measured as the number of cases of measles in the population in 1980 compared with the number of cases in each of the previous five years.

Objectives are usually time-limited, i.e., to be achieved in X weeks, months or years.

Characteristics of useful objectives

Objectives must satisfy four criteria[a]. They must be relevant[b], feasible[c], and observable or measurable.

An objective is relevant if it either fits in with the general policy or helps to solve the problem it is meant to solve.

It is feasible when it is possible to achieve it, i.e., the resources are available and the obstacles can be overcome.

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[a] Criterion (plural: criteria): Guide or standard against which something is judged.

[b] relevant: pertinent, related to the problem to be solved.

[c] feasible: possible, practicable.

It is observable when the result can be clearly seen or known. If a building is erected or a worker is trained in a new skill this is a result which can be seen.

An objective is measurable when the result can be stated in numbers. For example, 'malnutrition will be reduced to 1%' is measurable. 'All newborn babies in the Maternity Unit will be vaccinated with BCG' is measurable. At the end of the year the number of babies born and the number vaccinated can be compared, i.e., progress towards achieving the objective can be measured.

Objectives may be stated at different levels of the health system

1. "At the end of 5 years, less than 4% of children under three years of age will be undernourished (below 60% weight for age on standard growth chart)" is an example of an objective set by a ministry of health at national level.

2. At the middle level of the health system an objective is expressed as a number of operational targets, and standard instructions are written for village health workers for actions they must take to reach the targets (e.g. on nutritional care - instructions on health education, buying and use of local foods for child feeding, rehabilitation of children with malnutrition). The following are examples of operational targets and their corresponding rehabilitation activities at the middle level:

   a) To identify children of 0-3 years with malnutrition, according to stated nutritional criteria (state villages to be covered and number of children).

   b) To train village health workers to identify malnutrition according to criteria (state the number of village health workers to be trained).

   c) To plan a (definite) number of training sessions.

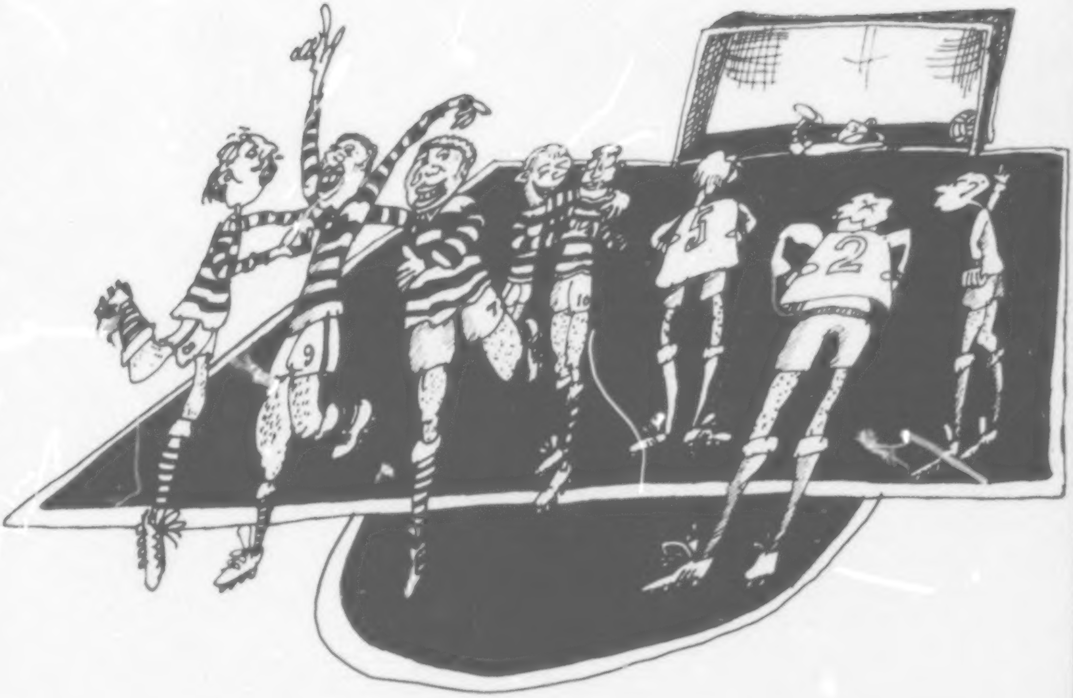
   d) To provide care for identified children according to standard instructions (the quality of care can be assessed).

3. At village level an operational target would be:

   Identify among the child population of 0-3 years of age all children with malnutrition, according to the specified criteria, and

   provide care to them according to the standard instructions.

In defining how the village health worker will apply the criteria (e.g., action to improve nutrition) standardizing instructions are expressed as activities of the programme, i.e., what health workers should do. The results will be evaluated at intervals to judge progress and finally at the end of a plan period, e.g., after five years, to see if the objective has been achieved.



This goal is observable and measurable

In the following examples, the objectives are examined against a check-list of questions to find out whether they are relevant, feasible, observable and measurable.

Example 1: Checking objectives against criteria

1. "An improved general nutritional level in District X by 1985".

Is this relevant? - Yes, if there is known to be a definite undernutrition problem.

Is this feasible? - Yes, if based on knowledge of the local situation, and resources are available or can be obtained.

Is this observable? - No, not until "nutrition level" has been defined in a way that can be observed, for example, upper arm circumference in centimetres.

2. "To reduce the transmission rate of hookworm in District Y by next year".

Is this relevant? - Yes, if the condition is widespread and causes anaemia.

Is this feasible? - No, the time stated (next year) is too short for the many operational targets (sanitation and educational work) which would be necessary.

Is this observable? - Yes, if the present transmission rate is known.

Is this measurable? - No, not until the actual reduction of transmission proposed is stated in numbers (e.g. X%).

Example 2: Setting objectives in antenatal care

If you are in charge of a health area you see from the monthly report tabulation that:

- *targets have not been met for antenatal care*
- *there are many maternal deaths.*

Lack of antenatal care, therefore, is a priority problem. An obstacle to care is lack of transport to the area for case-finding, because mountain roads are sometimes impassable.

Example 3: Setting a measurable operational target

The objective is stated as "to provide more expectant mothers with antenatal and ordinary care". The number or proportion of pregant women who will receive antenatal care in a specified time may be stated, i.e., the target. Setting such a measurable operational target enables the result of an activity to be evaluated. The target can, therefore, be stated as "to provide 60% of expectant mothers in the district with antenatal care during the period January 1981 to January 1982". The total expected number of pregnant women in a village for one year can be determined by using the crude birth rate for the country if this is available. The health worker-in-charge learns from her supervisor that the crude birth rate is 40/1000. She knows from the village survey report that the population of the village is 3200. She uses the following formula to determine the expected number of births:

Population X birth rate = number of expected births

$$3200 \quad X \quad \frac{40}{1000} \quad = \underline{128} \text{ expected births}$$

(Of course, there will always be more pregnancies than births because some pregnancies will not end with childbirth).

She then considers the resources available for the programme and estimates that the health worker can reach 77 expectant mothers which is the target for the programme (60%).

A MEASURABLE TARGET

HAS BEEN SET

Setting targets for programmes enables a health worker to see from monthly reports how well a programme is progressing during the year and to evaulate it at the end of the year.

If the birth rate for the country is not available, an estimate of the total number of expected pregnancies in a village for one year can be made by checking the number of births in the village during the previous year as reported in the village survey. This can be a rough estimate for immediate use.

For future years a health worker in charge of the area should arrange for all births in the village to be reported either to the village leader or the village health worker. In this way, the number of births each year for a five-year period could be added and the total divided by five. This would provide a more accurate picture of the average number of expected births each year.

__Example:__ __District of Vosokcham__

Nurse-Midwife Shireen has reviewed her choice of objective.

"to provide as many pregnant women as possible with antenatal care".

- *the community expresses great need for maternal care*
- *there are many maternal and neonatal deaths, which makes maternal care a priority health problem*
- *increasing maternal health coverage is a national priority*
- *substantial increase in coverage is practicable though difficult*
- *obstacles may be overcome with community participation.*

So that she can plan and organize the work and measure the achievement, N./M. Shireen sets a target: "to provide 60% of the expected number of pregnant mothers in sector A with antenatal care during the period January 1980 - January 1981".

SUMMARY STEP 3

- AN OBJECTIVE IS THE INTENDED RESULT OR ACHIEVEMENT OF A PROGRAMME OR ACTIVITY.
- OBJECTIVES MUST BE RELEVANT, FEASIBLE, AND MEASURABLE OR OBSERVABLE.
- OBJECTIVES ARE ESSENTIAL FOR MAKING PLANS AND EVALUATING RESULTS.
- OPERATIONAL TARGETS ARE EXPRESSED IN THE SAME WAY AS OBJECTIVES BUT THEY REFER TO SHORTER PERIODS OF TIME AND TO PARTS OF, OR STEPS TOWARDS, AN OBJECTIVE.
- AT THE MIDDLE LEVEL, NATIONAL OBJECTIVES ARE EXPRESSED AS OPERATIONAL TARGETS. ACTIVITIES ARE PLANNED TO ACHIEVE THE TARGETS SET.
- PROBLEMS AND THEIR UNDERLYING CAUSES ARE REVIEWED BEFORE SETTING OBJECTIVES AND TARGETS.
- WHEN OBJECTIVES AND TARGETS ARE EXPRESSED IN SUCH A WAY THAT THEY CAN BE MEASURED IT IS POSSIBLE TO ASSESS PROGRESS.

STEPS IN PLANNING

1.1 Looking at the situation

▼

1.2 Selecting important problems

▼

1.3 Setting objectives

▼

1.4 REVIEWING OBSTACLES AND LIMITATIONS

Types of obstacles and limitations
Environmental obstacles
Analysing obstacles and analysis of obstacles
Examples of obstacles and analysis of obstacles

▼

1.5 Making the plan.

LEARNING OBJECTIVES

After studying STEP 4 the health worker should be able to:

- identify obstacles to the achievement of a goal
- analyse ways of overcoming obstacles
- recognize limitations that cannot be diminished

1.4 STEP 4: REVIEWING OBSTACLES AND LIMITATIONS

Having set objectives the question must be asked: Are there any reasons why these objectives could not be attained? Are there limitations obstacles in the way?

Types of obstacles and limitations

The limitations of an activity may be simply the absence of resources and are discovered during a review of resources.

For example:

People	- are not interested, or they feel they have other more important needs, or there are no trained or skilled people.
Equipment	- is not available or cannot be bought or is too expensive.
Information	- is hard to find: there are no books, and advisers are not available.
Money	- is in short supply.
Time	- no one has time to start the plan or to supervise it.

There may be special environmental obstacles, and when making a plan, the environment should be reviewed to see if it presents any special difficulties such as:

- Geographical problems, which would be important in building roads, marketing goods, or transporting patients to hospital. Mountains, seas and lakes may present big obstacles to delivering an adequate health service in some areas.
- Climate, which may influence types of buildings, transport, gardening, nature of health problems, etc.
- Technical difficulties related to the technical level of the society, Thus, an electric centrifuge is useless in a health centre without electricity.
- Social factors, which are the most serious obstacles. There may be customs or taboos that operate against the plan. People may have prejudices against new ideas. Or there may be laws or regulations (good or bad) that prevent certain activities.

Finally, having reviewed and classified the obstacles and limitations, the health worker looks again at the objectives and changes or modifies them if necessary. Then they become the objectives and targets to be achieved.

The output of this Step would be an analysis of obstacles and limitations and a final list of objectives and targets.

Analysing the obstacles

A simple method is to list the objectives, then to write down the obstacles and limitations for each one, and group them under three headings as follows:

1. Obstacles that can be removed, i.e., a solution has been found. For example: "to provide and improve maternity care". The obstacle is a shortage of qualified midwives. The suggested solution is to train traditional birth attendants, supervision to be provided by midwives.

2. Obstacles that can be modified or reduced. For example: a group of villages want their children to be educated. They set as targets to build a school and recruit a teacher. They find their resources are insufficient. So they erect a simple construction providing at least protection from sun and rain. This permits them to offer a house to the teacher as an incentive to come to a rural area. A teacher can teach without a school building; but a building, however well equipped, is useless without a teacher.

3. Obstacles that cannot be removed. Most people have a more or less fixed income, at least for long periods of time. People can budget in a better way, use money differently, look for bargains, but the income is unchanged and living must be adjusted to it. In health planning, an objective must sometimes be replaced by one that needs less resources. For example, if it is planned to employ a midwife-supervisor and none is available, the goal may be changed so as to have an experienced trained TBA who will support and help others.

Example 1: Some obstacles to antenatal care

Objectives and targets have been set and one must make sure that there are no obstacles to their achievement.

Consider the target set on page 289, "to provide 60% of expectant mothers in the district with antenatal care during the period January 1981 to January 1982". Obstacles to achieving this target are:

- *Lack of transport*
- *Impassable mountain roads*
- *Women are not interested*
- *Shortage of trained personnel.*

Can these obstacles be overcome so that there is a good chance of meeting the target?

Example 2: Analysis of some obstacles

Objective	Obstacle	Analysis		Cannot be Changed
		Removed	Modified	
1 To provide trained personnel for all women in childbirth by 1985	Shortgage of midwives. Insufficient maternity beds	Train and utilize traditional birth attendants (TBA); midwives support TBA. Care for women at risk		
2 Build school	Insufficient material and money		Build simple shelter, using local material	
Recruit teacher	No accommodation		Build house for teacher	

SUMMARY STEP 4

ASK THE QUESTION "WHAT IS PREVENTING THE ACHIEVEMENT OF THE OBJECTIVE?"

REVIEW OBSTACLES/LIMITATIONS OF RESOURCES - PEOPLE, EQUIPMENT, INFORMATION, MONEY AND TIME.

REVIEW OBSTACLES/LIMIATIONS IN THE ENVIRONMENT - GEOGRAPHICAL, CLIMATIC, TECHNICAL AND SOCIAL.

ANALYSE OBSTACLES/LIMITATIONS TO DISCOVER TO WHAT EXTENT THEY CAN BE OVERCOME OR MODIFIED.

STEPS IN PLANNING

1.1 Looking at the situation
▼
1.2 Selecting important problems
▼
1.3 Setting the objectives
▼
1.4 Reviewing obstacles and limitations
▼
1.5 MAKING THE PLAN

Looking at alternative strategies
Balancing resources and needs
Choosing the best strategy
Detailing activities
Writing an outline plan
Example of a detailed plan.

LEARNING OBJECTIVES

After studying STEP 5 and performing the exercises on page 351 the health worker should know how to:

- consider alternative strategies
- tabulate needed and available resources
- select the best strategy, taking account, obstacles and resources
- mobilize community resources
- detail activities
- write a plan.

1.5 STEP 5: MAKING THE PLAN

The objectives and targets have been set. The health team and the community must now plan how these objectives and targets may be achieved. There may be several different ways or strategies for achieving them, or only one way.

Activities to meet objectives and targets is sometimes called "a strategy". The term strategy is a military one and means planning and using resources in the way that gives the best chance of success.

Example

A farmer decides to buy a goat for $100. He reviews his resources. He cannot afford any more. To achieve his objective he could:

1) *Write to an agent, enclose the money and have the goat delivered.*
2) *Exchange $100 worth of chickens with his neighbour who wants to sell a goat.*
3) *Go to market and buy a goat.*

The farmer thinks about the different choices:

1) *The money might get lost in the post. The delivery service is uncertain. He might not get a good goat.*
2) *He needs his chickens. Also if he exchanges them and gets a bad goat in return, that will upset relations with his neighbour.*
3) *Going to market means taking time away from his farm-work, and costs money for the bus fare. But he can select the goat and may get it for less than $100.*

He takes choice 3), to go to the market.

Next he must plan his activities: set the date for his travel; pack clothes, as he will stay overnight with a friend; make sure he has the money. Then he must walk to the next village, catch the bus to the market town and buy the goat. His objective is achieved on time (perhaps for less than $100).

Before planning activities it is necessary to:

- look at different possible ways of achieving the objectives
- balance resources and needs
- choose the best action plan

THEN,

- write detailed activities, based on the chosen plan of action.

Balancing resources and needs

To assist in deciding on a plan of action, it is helpful to draw up a table as shown below and to list the different possibilities, noting what is needed and what is available or can be provided.

Example

Programme:

TYPES OF RESOURCES	RESOURCES NEEDED			RESOURCES AVAILABLE		
	Possibility Alternative 1	Possibility Alternative 2	Possibility Alternative 3	Possibility Alternative 1	Possibility Alternative 2	Possibility Alternative 3

Reviewing resources includes the community's own resources, and that means people, mainly. It also includes buildings such as a community meeting-house where health activities could be carried out; materials such as wood for construction; transport such as a boat, animals, the local bus service.

Resources include:

- people: health personnel and other people in the community
- environment, climate and land (with seasonal variations and problems)
- water, transport, buildings
- time
- community organizations.

The community should participate in planning by means of an area representative at the middle level, and the village leader and others designated by him at the village level. A plan must be drawn up within the limits of available resources, even if at first some activities have to be modified. Look at the priorities and consider how resources can be used for the maximum benefit of the whole population. One may have to think of alternative ways of using resources, or using less resources. For example, using oral rehydration therapy at the village level is an alternative to sending children to a health centre for intravenous therapy. Using local transport is an alternative to maintaining an expensive vehicle and a driver, as well as paying for running costs, maintenance and repairs.

The advantage of planning like this is that it ensures that some change takes place. Progress will be made toward achieving targets. Only when all available local resources have been allocated should requests for extra resources be made. Sometimes plans are made that rely on donations or extra government funds. If resources are not granted the plan fails. Therefore,

PLAN FOR THE USE OF AVAILABLE RESOURCES AND MOBILIZE[a] COMMUNITY RESOURCES

Example: Devising alternative solutions to overcome obstacles

(Refer to List of Obstacles page 293)

When obstacles arise to carry out a programme ways must be found to overcome them. It is useful to consider several possible ways of solving a problem, as, e.g., in the following example.

Example

Obstacles 1 and 2: Lack of transport and mountain roads

Possible solution 1: Find volunteers or traditional birth attendants in each village, and train them to give simple antenatal care.

Possible solution 2: Find a building half-way between the village and the health centre, where regular antenatal clinics could be held, so that the travel distance would be less for both the health worker and the expectant mothers.

Possible solution 3: Order a vehicle for the use of the health worker.

Obstacle 3: Women are not interested.

Alternative solution 1: Talk with the community leaders. Identify women in the community who would promote and develop an antenatal care programme. This solution coincides with solution 1 to overcome the obstacles 1 and 2 above, i.e., to train volunteers to provide antenatal care.

Alternative solution 2: Train and use traditional birth attendants.

What resources are needed for the various possible solutions?

To choose the best solutions for identified obstacles each possible solution must be considered in relation to the resources needed and available. Thus in the above example the resources needed and available would be listed as in the Table shown in the next example.

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[a] mobilize: put into effect action.

Example

Programme: Antenatal Care

TYPES OF RESOURCES	RESOURCES NEEDED			RESOURCES AVAILABLE		
	Alternative 1	Alternative 2	Alternative 3	Alternative 1	Alternative 2	Alternative 3
1 People	Training	-	-	Yes	-	-
2 Equipment/ premises	-	Clinic building	Heavy-duty vehicle	Yes	No	No
3 Educational materials	Models and handbooks	-	-	Yes	-	-
4 Environmental situation	-	-	-	Positive	-	-
5 Money	$5000 + training costs	$5000 Building may be donated	$5000 + cost of vehicle + upkeep	No	May be donated	No
6 Time	3 days once a month + training time	1 day once a month service	1 day once a month	Limited training time	Yes	Yes
7 Community	People	Transport time	-	People available	No transport, limited time	-

RESOURCES NEEDED HAVE
BEEN REVIEWED

Health services management uses this method of listing resources against solutions for each programme being planned or replanned. It is a basic step in preparing a schedule of activities.

People are the most important resource for a programme. When discussing obstacles and how they may be overcome, representatives from the community should participate. They can indicate what the people can do for themselves. Community participation also ensures that what is being planned is what the people want and need.

All members of the health team should also participate and agree on the choice of action.

Choosing the best action plan

The choice of action in any country, district or area depends on circumstances. For example, are there traditional birth attendants in the area? How much money is available? Which alternative does the community prefer? Which will give the greatest coverage in the long term?

In many cases, more than one choice could be made. For example, traditional birth attendants could be trained and, meanwhile, a long-term plan for a future clinic could be started. The traditional birth attendants could deal with normal deliveries and the clinic would deal with referred complications.

Example

Suppose that after studying the various possible actions (see Example, page 299) it is found that the first is the most suitable and has the support of the village: "Find traditional birth attendants in each village and train them to give simple antenatal care".

The main obstacle to be overcome is that of persuading a health worker to stay for some nights in the village so that traditional birth attendants (TBA) may be trained. If the health worker (in this case, the midwife) has taken part in planning, she can see the advantages of using the TBA. As government regulations already permit a certain sum of money for duty travel, the midwife is persuaded to go to the village and to stay with the wife of the village leader.

How can the problem of the health worker's transport be overcome? Few places in any country are totally cut off. The village people get down to the market: therefore health staff can travel the same way and stay a short time in the village.

What are the advantages of the chosen course of action?

It will serve the greatest number of people.

By training TBAs to provide limited care and to identify women 'at risk' the qualified staff will have more time to spend on training and supervision, and dealing with complicated cases. Eventually, as more TBAs are trained and used, all pregnant women will be covered. Very little equipment is required. The TBAs can learn by doing. Even without equipment they can learn to do very many useful things.

Finally, and what is most important, this course of action is what the people want. They know the traditional birth attendant; she is always available to the people of the village.

Example: District of Vosokcham

Nurse/Midwife Shireen has decided that in her district the best choice of action is No 1, i.e., to train the TBAs in Sector A.

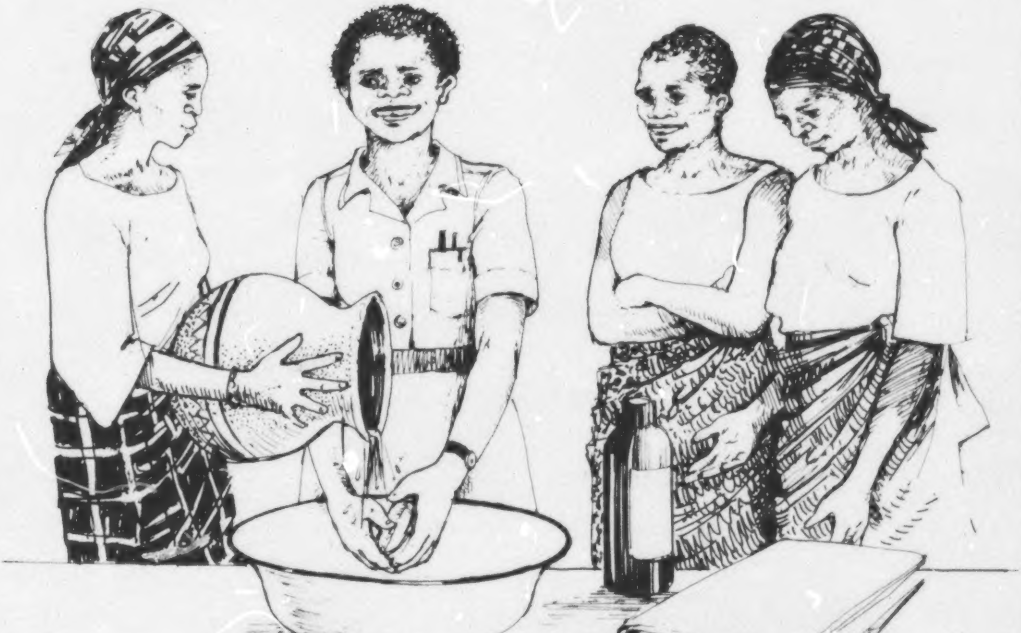
This action seems the only practicable way to reach the target of providing antenatal care to 6[illegible]% of pregnant women within one year.

What will happen to the other 40%? They will continue as before to be served by untrained TBAs, but Nurse/Midwife Shireen expects that within three years all the TBAs will be trained.

Nurse/Midwife Shireen made a list of everything a TBA could do to find and refer 'women at risk'. A 'history' of previous deliveries would indicate many possible 'risk' cases. Also the TBA could perform certain obstetric examinations without any equipment.

The midwife will spend more time training, supervising and supporting the TBA and less time doing the actual antenatal care herself. She will deal with all women referred to her by the TBA, and any woman she finds 'at risk' during her supervisory visits.

Training traditional birth attendants



Writing an Outline Plan

A plan can be written in many ways.

The order in which it is written depends on its main use or purpose. Sometimes governments or councils require plans in a specific form, especially when they are submitted to request funds or other resources.

In other cases, the order of headings used in writing a plan is less important. But it is very important to write up the plan under some system of headings so that nothing is forgotten.

It is useful to write a brief summary of the whole plan and then to put details such as lists of equipment in an annex. Too many details distract from the overview of a plan, but details are necessary so that the health worker who is responsible for managing the programme has full control of the implementation.

In the example which follows, a plan is written using the seven guideline words: WHY, WHAT, HOW, WHO, WHICH, WHERE, and WHEN. It is followed by examples of detailed lists of time-targets, requirements and budget items for an antenatal care and maternity programme.

An Outline Plan
Using the Seven Guideline Words

Planning

STEPS	
1 THE INFORMATION & 2 THE PROBLEM	WHY are we doing this? Explain, the background, the problem to be solved, the reasons for the plan.
3 OBJECTIVE AND TARGETS	WHAT is to be done? State what is expected to be achieved - both the main objective and the smaller targets.
4 CHOSEN STRATEGY & 5 AND ACTIVITIES	HOW will it be done? Explain the strategy chosen, how it will overcome the obstacles and the detailed activities.

Implementing

RESOURCES	WHO will do it? People - how many are needed? what skills do they need? how will they be allocated?
	WHICH things do we need? Equipment - list equipment available list equipment to be ordered Money - funds available (Budget) How it is to be used how much more is needed

ORGANIZATION

WHERE will the work be done?
In which areas/villages/buildings will the plan be operated

WHEN will it be done?
Schedules of stages for activities to begin and end.

Controlling

- Allocate responsibility for activities (assignments)
Decide on information to be collected for monitoring and how it will be used.

Outline of Programme in Maternal Care

THE PROBLEM

An isolated mountain community has no antenatal care and a high rate of maternal and neonatal deaths. The community is difficult to reach because of poor roads.

OBJECTIVE

To give about 60% of women both antenatal and delivery care within the next year.

STRATEGY AND ACTIVITIES

The work is to be done by TBAs. The strategy is to train a nurse/midwife to train the TBAs. She will visit the village once a week and train local TBAs. Activities are shown in Annex 1, below.

RESOURCES

Nurse/midwife X has been chosen for a short course in the training of TBAs. Her job description is shown in Annex 2. The community will invite the TBAs to volunteer for training. Equipment lists and budget are shown in Annexes 3 and 4. Previous resources analysis is shown in the example on page 295 which would also be an annex to this programme outline.

ORGANIZATION

The TBA training will take place in the village hall. The schedule for preliminary activities is shown in Annex L.

CONTROL

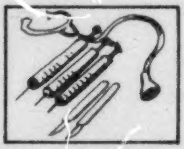
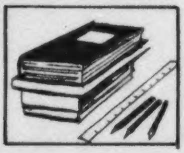
Each TBA will keep a simple record of her deliveries. These will be discussed each time the Nurse/midwife visits the area. Problems can then be reviewed and advice given.

ANNEX to Outline Programme

Annex 1

A timetable is an extremely important item to be included in the preparation of programmes in order that money, people and equipment are available at the planned times to implement the programme.

An example of detailed time-targets.

		Sequence of Activities	*Time Targets*
1.		*Visit to the community to discuss with people and to request donation of materials and clinic space. To identify TBAs for training.*	*7 February*
		Donated materials and space to be secured.	*1 April*
2.		*Equipment ordered*	*2 April*
		Equipment received	*5 May*
3.		*Medicine and material supplies ordered*	*2 April*
		supplies to be received	*5 May*
4.		*Education materials ordered*	*2 April*
		education materials received	*5 May*
5.		*Per diem funds for health worker requested*	*1 June*
		Per diem funds to be received	*13 June*
6.		*Programme to be started*	*15 June*

Some type of time-targeting must be used by management to inform those in charge of releasing money and ordering supplies of when the requirements are needed. It is also used to control programmes in order to meet time-targets.

Annex 2 Job description for midwife in antenatal care work

A midwife is a person who has successfully followed the prescribed period of training, passed the required examinations to obtain a diploma (or certificate) in midwifery, and is registered with the appropriate authority as a "State Midwife".

The health worker/midwife is required to carry out the following tasks:

Promotive activities

To establish and maintain contact with TBAs and women in the child-bearing age group, with community leaders and with other community development workers

To use methods of demonstration, individual and group counselling, and learning and teaching, while working with TBAs including:

- good personal hygiene
- good nutrition based on locally available foods for TBA, her family and the community
- organization of safe childbirth services
- education in methods of child spacing.

Health care activities

To support the TBAs and carry out the following procedures and tasks for 'women at risk' referred by the TBAs for further care:

- determining pregnancy
- weighing expectant mothers
- checking blood pressure
- checking for anaemia and giving medication as indicated
- checking for vitamin deficiencies and giving medication as indicated
- examining for fluid retention
- testing urine
- pelvic measurement
- estimating approximate date of delivery
- identification of high-risk pregnancies
- explaining foetal development and maternal body changes
- demonstrating care of the newborn.

She will refer expectant mothers at high risk to a higher level of care when needs are beyond her skill capacity or when resources are not available.

Information system

- registration of pregnant women*
- registration of all activities carried out
- registration of births and deaths related to the antenatal programme
- preparing a monthly report of activities using the forms provided for the purpose, including training sessions for TBAs
- forwarding the monthly report on the third day of the following month to the health centre.

Drugs and supplies

- reporting monthly on medicines and supplies used and the amount remaining
- ordering every six months the replacements needed from the list of medicines and supplies for the antenatal care programme
- transporting ordered supplies from the health centre to the village.

Training and experience

The health-worker/midwife will have undergone a period of training in learning and teaching methods, and will have had experience in antenatal care under direct supervision from a senior midwife.

Supervision

She will perform her tasks under the supervision of the senior health worker at the health centre.

"She will refer 'at-risk' expectant mothers to a higher level of care when needs are beyond her skill capacity or when resources are not available".

---

*Registration may be done by a volunteer from the community, or by the TBA if she is literate, but the midwife is ultimately responsible to see that it is done.

Annex 3 A requirements list for a maternity programme

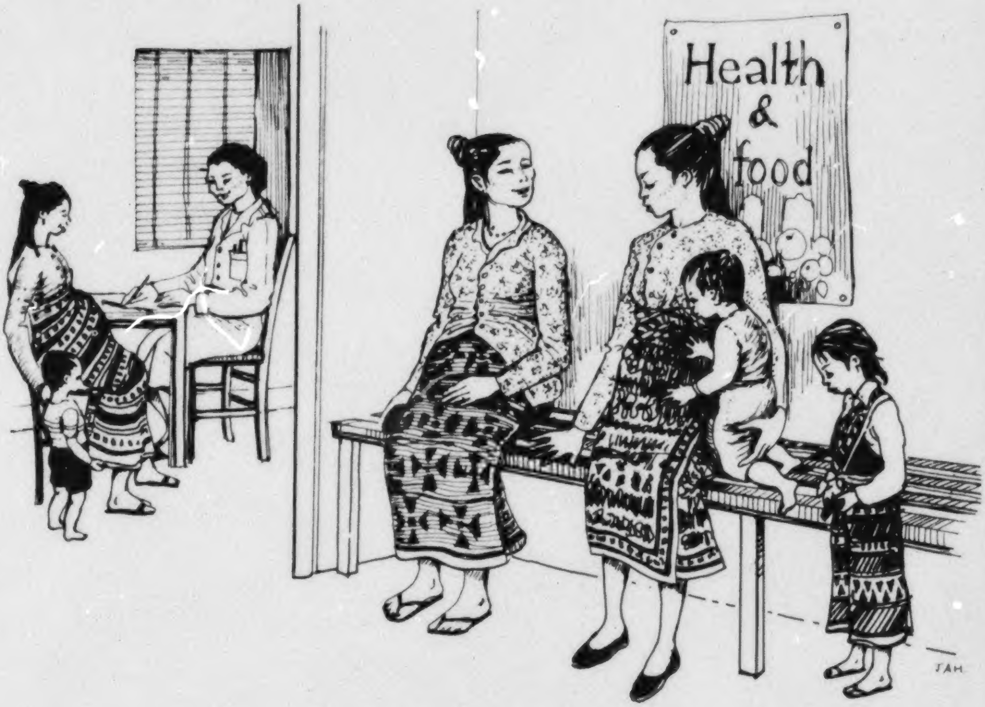
		Available	Required
People			
	1 midwife or other health worker	✓	
	Traditional birth attendants (according to availability and population maximum number in class: 8)	✓	
Equipment for TBAs			
Non-expendable	Midwifery kits	✓	
	Handwashing basin	✓	
	Waiting bench or mats		✓
Expendable	Soap	✓	
	Referral cards (different colours for different problems if TBA is illiterate)		✓
	Ferrous sulfate tablets	✓	
	Flannel board		✓
Equipment for midwife or health worker			
Non-expendable	Weighing scales	✓	
	Haemoglobin test kit	✓	
	Midwifery kit	✓	
	Examination couch		✓
	Test tubes	✓	
	Soap dish	✓	
	Handwashing basin	✓	
	Office chair	✓	
	Desk	✓	
	Waiting bench		✓
Expendable	Sheets	✓	
	Cloth for examination screen	✓	
	Towls	✓	
	Soap	✓	
	Referral cards	✓	
	Maternal records	✓	
	Register book	✓	
Medicine and laboratory supplies			
	Ferrous sulfate tablets	✓	
	Vitamin A capsules	✓	
	Benedict's solution acetone powder	✓	
Education materials			
	Flannel board	✓	
	Nutrition models	✓	
	Growth of baby models	✓	

Annex 4 **A detailed budget for a maternity programme**

Example: Budget for an antental programe (....year)

item	$ cost
1. People	
1. Salary	
$20/day x 12 days/year x 1 health worker	240.00
2. Travel	
$0.20 per kilometer for 10 kilometers x 12 days/ year x 1 health worker	24.00
3. Other incentives allowed	
$5 per day x 12 days/year x 1 health worker	50.00
(if training is required, the cost would be entered here)	
Sub total	314.00
2. Equipment	
Non-expendable	
1 pair weighing scales at $70.00	70.00
1 set haemoglobin test kit at $35.00	35.00
1 midwifery kit at $49.00	49.00
1 examination couch at $350.00	350.00
4 test tubes at $0.20 each x 4	.80
1 handwashing basin	2.00
1 soap dish at $0.20	0.20
1 waiting bench at $35.00	35.00
Sub total	542.00
Expendable	
4 towels at $1.00 each x 4	4.00
8 soap bars at $0.10 each x 4	.80
50 referral cards at $10.00/100	5.00
100 maternal record cards at $10.00/100	10.00
1 register book at $2.00	2.00
	21.80
Medicine and laboratory supplies	
2 bottles Ferrous sulfate tablets at $65/bottle	130.00
2 bottles Vitamin A capsules (100 000) at $425/bottle)	850.00
1 litre Benedict's solution at $2.00/litre	2.00
1 g Acetone test powder at $3.00/g	3.00
	985.00
Education materials	
1 Flannel board at $35.00	35.00
Food for nutrition demonstration (donated)	10.00
1 set Growth of Baby models at $20.	20.00
	65.00
Total programme cost	$1927.80
Donated goods	10.00
TOTAL BUDGET NEEDS	$1917.80

Women "at risk" are referred to the midwife or health centre.



SUMMARY STEP 5

LOOK AT SEVERAL WAYS OF ACHIEVING THE GOAL (ALTERNATIVE STRATEGIES).

MAKE A TABLE OF RESOURCES NEEDED AND AVAILABLE FOR THE DIFFERENT STRATEGIES. ALWAYS REMEMBER THE RESOURCES WITHIN THE COMMUNITY.

CHOOSE THE BEST ALTERNATIVE STRATEGY.

WRITE AN OUTLINE PLAN.

MAKE DETAILED ACTIVITY SCHEDULES AND BUDGETS.

Chapter 2: Implementing health activities

LEARNING OBJECTIVES

After studying this chapter and practising the instructions under supervision the health worker should know how to:

- coordinate the activities of a plan
- coordinate people within an organization structure
- communicate decisions concerning implementation
- use a check-list in reviewing work standards
- use records to monitor work
- use reports to assess work outputs
- redirect activities as necessary
- make a yearly schedule of supervisory visits
- plan a supervisory visit
- conduct a supervisory visit in a helpful way.

CHAPTER 2

IMPLEMENTING HEALTH ACTIVITIES

2.1 COORDINATING[a] THE WORK OF THE HEALTH TEAM

With the formulation of the plan, the most difficult part of the process is reached - how to put the plan into action. Planning is designed to help implementation. The plan is a check-list and a guide. It is not something developed in isolation from existing activities.

A programme is a grouping or series of continuing and related activities designed to achieve a definite purpose or objective. It is a course of action to implement a plan or part of a plan. Stage by stage, the activities necessary to fulfil the plan are implemented so that gradually the work is completed; changes take place and are integrated into existing programmes or become the beginning of a new programme.

For example:

A maternal and child health programme provides antenatal care to 50% of pregnant women. The objective of the plan is to extend this service over a period of time to cover all pregnant women. Implementing the plan means carrying out all the activities necessary for all pregnant women to receive care. Then the plan will have achieved its objective, and antenatal care for all expectant mothers will be an integral part of the maternal care programme.

The health worker in his management planning function:

1. Reviews the plan.

2. Writes detailed activities for each objective/target.

3. Makes the timetable. The timetable is essential for implementation. It states exactly when an activity must begin and end, and who is responsible, and it includes a column for remarks.

4. Assigns responsibilities to staff.

5. Discusses the proposal with representatives of the community, health service staff and workers in other sectors where appropriate. The community decides how it can participate.

6. Checks the above items 1 to 5 against the seven guideline words: Why, Who, When, What, Where, How and Which.

To coordinate the work of the health team the health worker-in-charge must:

- coordinate the members of the health team
- coordinate the activities
- communicate the decisions.

---

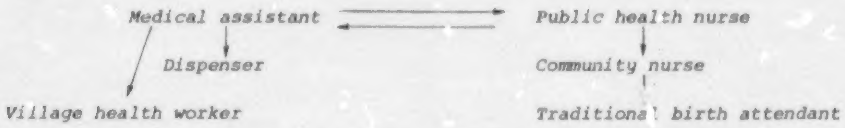
[a] To coordinate: To bring parts into proper relation.

Coordinating the members of the health team

The need to coordinate people working in a programme has been discussed briefly in Part II, Chapter 3.2.

(a) Coordination is easier if there is a clear organizational chart, describing the relations of each member of the service.

For example:


Medical assistant
Public health nurse
Dispenser
Community nurse
Village health worker
Traditional birth attendant

(b) Clear job descriptions help people towork together harmoniously. (see Part II Chapter 3).

The relations between staff are strengthened if each one has a clear job description and knows to whom he is accountable for his actions. However, the job description must be seen as a guide. It must not be used as an excuse for not helping others who may, at times, have a heavier workload, or for refusing to participate in activities not specifically stated in the description.

(c) Sharing objectives and targets is another important factor in bringing people together. (but this is a reason for coordination!)

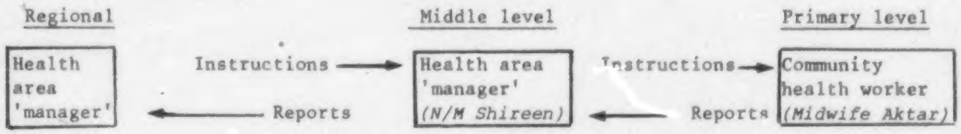
(d) Organizational structure determines how communication takes place between the different levels of a system for the purpose of coordinating a programme and the activities of a health team. It specifies:

- who instructs others in what they are to do at each level of the organization
- whom each person reports to on job progress or problems.

Example

Midwife Aktar works in Sector A. She is supervised by the middle-level health area 'manager', Nurse/Midwife Shireen. Midwife Aktar sends monthly reports to the area health centre.

There is, often, a three-level direct-line relationship in an organizational structure, as follows:


Regional
Middle level
Primary level
Health area 'manager'
Instructions
Reports
Health area 'manager' (N/M Shireen)
Instructions
Reports
Community health worker (Midwife Aktar)

It is important to remember that only the structure of the organized health services is shown. The health system includes the unorganized or informal care given within families and that given by other people in the community such as healers or neighbours.

The health-worker/midwife must understand the structure of the health system and know what her responsibilities are in relation to the TBA(s). She must also know she is accountable to the health worker who has management functions at the middle level and through her to the community.

If the health worker in Village A, for example, does not follow this line and sends reports and requests for supplies for the antenatal care programme to another person, the middle-level 'manager' will lack the information needed to coordinate the programme.

Coordinating the activities

It is not enough to list the activities necessary to the plan. The list must be put into a timetable or schedule. The schedule must state the time for beginning and completing each activity and who is responsible to see that it is done.

In order to do this the programme must be reviewed:

What should be done.	Programme content (e.g., content of the antenatal programme.
How it should be done.	Procedures to be done - technical, administrative, managerial, etc.
Who should do it.	People responsible for the different tasks: health workers, administrative staff, community workers, etc.
WHEN it should be done.	Time-targets to be followed.
HOW MUCH it costs	Budget.

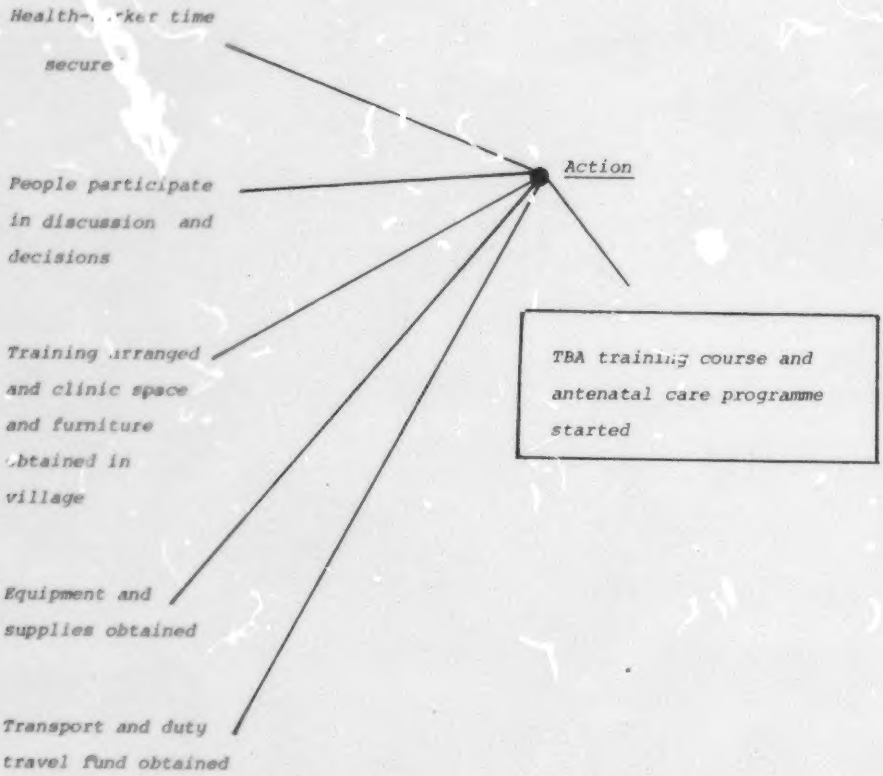
The next management function is to coordinate the what, how, who, and how much, in order to meet the when requirements of the programme. To do this, there must be a clear understanding of why activities must be carried out.

Then an activities schedule is prepared.

Example: Making an activities schedule

Step 1: List all activities that are necessary to reach the programme objective

In Chapter 1, Planning Health Activities, Step [illegible], above, a programme for antenatal care is presented (page 300). It must be reviewed and a final listing of activities made.



Step 1: *List Activities*

Health-worker time secured

People participate in discussion and decisions

Training arranged and clinic space and furniture obtained in village

Equipment and supplies obtained

Transport and duty travel fund obtained

Action

TBA training course and antenatal care programme started

Step 2: *Identify main activities that would lead to achievement of the objective.*

Based on the list of detailed activities, the major activities to achieve the goal are then identified.

Step 3: *Indicate time-targets for each of the detailed activities listed*

Step 4: *Identify workers who will be responsible for each of the detailed implementing activities*

Staff will be assigned for each of the activities listed, on the basis of their job descriptions.

The following table is an example of an activities schedule:

Example: Activities Schedule, Steps 2, 3 and 4

Timetable *District: Bongo* *Implementation Phase*

Objective: *At the end of five years less than 4% of children under three years of age will be undernourished (i.e. below 80% weight for age on standard growth chart)*

Operational Target	Activities	Begin	Complete	Responsible Officer	Remarks
1. Each village all have a village health worker (VHW) trained in nutrition by end of 1980	Review criteria for definite malnutrition	10.3.80	12.3.80	Medical Assistant M. Bako	
	Review standard procedures to improve nutrition	10.3.80	12.3.80	"	
	Outline training course for VHW. Select participants.	15.3.80	17.5.80		Delayed unti 25.6.80 owin to illness.
	Organize central training place	30.3.80	30.5.80	Manager (Person in charge) with clerical staff	
	(Village A) Consult community leader. Request funds from provisional health authority for board and lodging.	30.3.80			
	Order equipment, teaching aids	"		Storekeeper	
	Select teacher, other participants in teaching process, e.g., midwife	"			
	Receive equipment		14.7.80	M. Bako	
	Teacher available			Assistant Midwife	
	Course begins	15.8.80		Maria	

Communicating the decisions

However well the planned activities are scheduled, and the organizational chart and job descriptions written down, coordination will not succeed until these work directives are communicated and understood by all members of the team.

An organizational chart may be placed on the wall of the centre and discussed with the members. Each health worker should have an individual job description in writing.

The activities schedule should be discussed with the team and with the community to see if the time-targets are feasible and realistic.

SUMMARY

IN ORDER TO COORDINATE WORK EFFECTIVELY, THE HEALTH WORKER-IN-CHARGE MUST:

- COORDINATE PEOPLE SO THAT THEY WORK TOGETHER HARMONIOUSLY
- ARRANGE AN ACTIVITIES SCHEDULE
- COMMUNICATE DECISIONS TO ALL CONCERNED WITH THE WORK.

2.2 MONITORING AND REDIRECTING A PROGRAMME

Many health activities are taking place at once. The supervisor, who cannot be everywhere at once, needs some tools to watch or "monitor" the work. The purpose of this management activity is to maintain work standards.

Maintaining work standards

A health-worker supervisor must be able to:

- use check-lists to observe performance and identify deficiencies in standards, outputs and procedures
- trace the causes of work deficiences. Why are targets not being achieved? The reasons may be personal, technical, administrative or organizational.

The usefulness of a check-list, notably to select priority problems, has been discussed in other chapters. The check-list functions as a set of criteria. A health worker, can prepare a check-list to assist in supervising. It is a record or a reminder of what is happening. It can be used as a basis for planning future activities and for following up progress.

The causes of work deficiences are to be found in many areas. Targets are assessed periodically (so that defects can be put right and problems solved before they become too serious).

Sometimes the cause of a deficiency may be a technical fault in an important piece of equipment such as a jet injector or a typewriter. Or may be a fault of organization: e.g., a nurse may be overworked and unable to meet all the demands on her attention, while training a rural health worker for certain tasks could resolve the problem.

A deficiency may be found in the staff or in the administration. For example, reports may not arrive at the health centre on time, or at all. By acknowledging reports from the village, by letting health workers know that the contents are of interest and are useful, workers will be encouraged to send them in and on time.

Sometimes a work-deficiency can be remedied by retraining (see Part II, Chapter 3.5).

A supervisor who is 'monitoring' is continually checking on the health service activities.

Is the programme/service operating as it was intended?

For example: *Do the health units receive adequate drug supplies?*
Are the leprosy clinics being held regularly?
Do the midwives complete the MCH cards correctly?
Is the referral system being used as intended?

Methods of monitoring

Ways of monitoring equipment and resources are described in Part III.

A supervisor monitors by:

- continually observing,
- checking supplies against inventories and stock-lists,
- examining records, and
- discussing with staff and the community.

Using information from records for monitoring

Information will be used for day-to-day problem identification as well as for yearly planning of the health work for the area. It will be necessary to know what the information means and whether it is correct. Records must be reviewed at regular intervals and information must be verified.

There follow four examples of analysing and verifying information.

Example 1

In the monthly checking of the stock ledger and inventory it is noticed that nearly all the two months' supply of oral rehydration mixture has been used in the first month.

A PROBLEM HAS BEEN
FOUND ON A REGULAR
RECORD REVIEW.

Is the information correct or was there an error in recording the amounts?

The supervisor checks the monthly reports to see if the information on the amount of mixture used accords with the number of people who were treated for diarrhoea; he finds that more people than usual received this treatment.

INFORMATION HAS BEEN
VERIFIED BY CHECKING
WITH ANOTHER RECORD.

Example 2

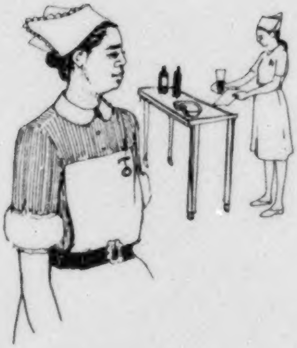
A review of monthly reports shows that the number of new attendances at antenatal clinics is falling each month. According to the information available about the number of women in the childbearing age group, the number of expectant mothers receiving antenatal care should be increasing.

A PROBLEM HAS BEEN
FOUND ON A REGULAR
REPORT REVIEW.

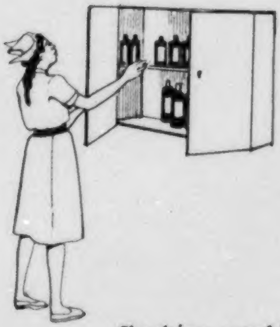
The information may also be verified in other ways, such as talking with the villagers or with the village leaders.

To be sure that the reports are accurate, the health worker-in-charge talks with the health worker who wrote the monthly report, and finds that the reported information is correct.

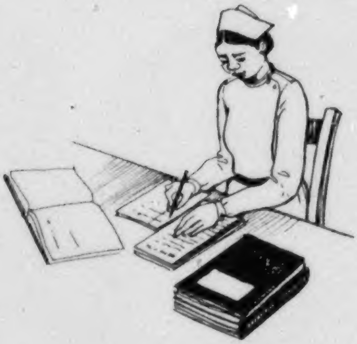
INFORMATION IS VERIFIED BY
TALKING TO THE VILLAGE HEALTH
WORKER AND THE VILLAGERS.



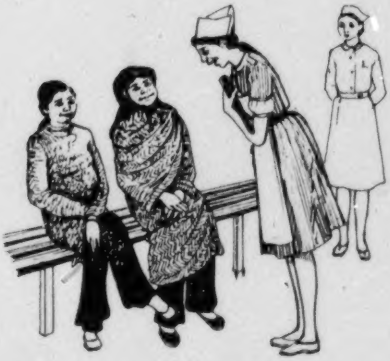
Observing



Checking supplies



Examing records



Talking with patients

Monitoring health service activities

Example 3: Assessing progress towards target

"To give antenatal care to 60% of the expectant mothers in Sector A in one year".

Is the objective being reached? Management tools that measure quantity or output of work will help to answer this question.

Information from the health workers such as the monthly report will tell how many pregnant women were given care by a health worker during the month being reported.

Adding the totals together month by month (cumulative total) will show the exact number of pregnant women who have received care to date. This number can be compared with the target of 60% which was set for the programme to see if the work is progressing as expected. An example of this process is shown below.

The supervisor has received monthly reports for the past six months from the health worker in Sector A. Cumulative totals made each month for the antenatal programme are as follows:

Month	*Number of antenatal women receiving care (new patients)*	*Cumulative totals*
January	*3*	*3*
February	*5*	*8 (5 + 3)*
March	*7*	*15 (8 + 7)*
April	*6*	*21 (15 + 6)*
May	*8*	*29 (21 + 8)*
June	*10*	*39 (29 + 10)*

The target set for the programme was that 60% of expectant mothers were to receive antenatal care. The expected number of deliveries for the year was 128 and the target of 60% is 77. The number under care to date is 39. Therefore, the cumulative total shows that the programme has reached half the target at the end of six months. The target for the year is likely to be met.

Example 4

If targets are not being met the reason must be sought. The following example shows some of the questions that must be asked and the corresponding management tools that must be used to help to find out why targets are not being met.

Example Investigation of antenatal care programmes

Questions	*Management tools*
Is the work planned efficiently?	*Supervisory check-list.*
Have good community relationships been established by the health worker?	*Talk with the people.*
Are the TBAs participating well in the training	*Supervisory visit with midwife and TBAs.*

Do TBAs provide antenatal care at home?	*Reports from midwife.*
Do TBAs participate in group antenatal session?	*Supervisory visit.*
Are the supplies available?	*Inventory of stocks.*
Is the programme wanted and accepted by the people?	*Talking with the people and examining pregnant women.*
Is early action being taken on needs found in the supervisory visits?	*Supervisory check-list (months and results of visits).*
Do you feel the action chosen was the best one? Are there problems that were not revealed during the planning period?	*Talking with the health worker and the people.*
Is there a coordination problem?	*List of intermediate activities.*
Were the activities planned for the programme adequate?	*Programme plan (stating procedures, time elements, etc.).*

Redirecting activities

The purpose of monitoring is to maintain work standards.

Information which comes from monitoring guides health activities. If work deficiences are found or targets are not being met, the causes must be sought. Changes are made in the programme according to information received from monitoring. Making these changes is sometimes called 'redirecting'.

When it is found that targets are not being met it is often necessary to redirect the programme: sometimes the goals must be modified.

For example, management finds that antenatal care targets are not being met, and that the reason is that some TBAs are hostile to the training programme. They do not give antenatal care. The women they deliver do not wish to attend the group clinic.

This can be overcome, the nurse/midwife thinks, through a group approach. That is, first, she discusses the problem with the midwife; then, together she and the midwife will see community leaders; and finally they talk with all the TBAs, especially those who have not yet participated fully in the training and antenatal programmes.

Meanwhile the midwife will spend an extra day each month in health sector A devoting more time to work with the TBAs and among the women the TBAs will deliver.

Time, therefore, is an important element. The midwife must adjust her timetable and activities. The nurse/midwife must adjust her timetable to permit her to spend more time for a month or two visiting health sector A to support the midwife, and help her to consolidate the antenatal programme. This will mean delegating certain tasks to another staff member of the health centre. Since this programme will be a model, if successful, for other villages in the area, she feels the time spent there is worthwhile.

SUMMARY

MONITORING MEANS WATCHING THE PROGRESS AND STANDARDS OF THE WORK IN A PROGRAMME.
MONITORING IS DONE BY SUPERVISORY VISITS USING A CHECK-LIST.
IT IS ALSO DONE BY INTERVIEWS, DISCUSSIONS AND BY STUDYING RECORDS AND REPORTS.
A PROGRAMME MAY BE REDIRECTED AS A RESULT OF MONITORED INFORMATION.

2.3 SUPERVISING IN ACTION

Part II, Chapter 2.4 discussed three styles of supervision, viz., autocratic, anarchic and democratic. Whatever style is adopted the activities of supervision remain similar. This chapter discusses some of these activities.

Making a supervisory schedule

There may be one or several health workers assigned to different villages in a health area. In either case a supervisory plan must be made for each year. How often monthly visits are to be made will depend on the local situation, the state and stage of the programme, and the availability of transport and personnel.

Planning the schedule for supervisory visits includes:

- checking the health worker-in-charge of the job description for the frequency of required supervisory visists
- listing of all programmes
- reviewing previous reports
- identifying needs for extra control
- noting in which health area special assistance is required

Step 1: Listing where supervision is most needed. A listing such as shown in the following example enables a health worker supervisor to see reasons for more frequent visits - and thus to plan for them in order to maintain the control needed to reach programme goals.

PROGRAMME	EXTRA NEEDS FOR CONTROL	HEALTH AREAS		
		A	B	C
1. Antenatal	New programme: 1 visit a month for six months from July	✓		
2. Nutrition	Coordination with other agency workers: 1 visit a month for six months from July	✓		
3. Immunization	Reorganized activity: visits In Jan. and June	✓	✓	✓
4. Water supply	New health worker: 1 visit a month		✓	

Step 2: Reviewing other timetables. The next step in scheduling is to arrange a timetable for the supervisory visits.

Two things are needed for this:

(i) The plan made for the year. This shows the definite dates during the year that are allotted to fixed events. (Refer to Part III, chapter 4, Preparing a Year Calendar, p.201).

(ii) The health unit timetable schedule. This timetable tells the day during the week that are allotted to activities that are scheduled regularly. (Refer to Part III, Preparing a Health Unit Timetable, p. 190).

Step 3: Making a yearly schedule for supervisory visits. The yearly schedule for supervisory visits is then planned as shown in the example below, considering:

- minimum needs for supervisory visists
- programme needs for more frequent supervisory visits
- fixed dates in the annual plan
- fixed activities that happen regularly each week.

Example: Yearly schedule for supervisory visits

Month	Area A	Programme Number	Area B	Programme Number	Area C	Programme Number
Jan	1st Mon	3	2nd Mon	3	3rd Mon	3
Feb			2nd Mon	4		
Mar	1st Mon	all	2nd Mon	4	3rd Mon	all
Apr			2nd Mon	4		
May	1st Mon	all	2nd Mon	4	3rd Mon	all
June	1st Mon	3	2nd Mon	3	3rd Mon	3
July	1st Mon	1 + 2				
Aug.	1st Mon	1 + 2	2nd Mon	all	3rd Mon	all
Sept.	1st Mon	1 + 2				
Oct.	1st Mon	1 + 2	2nd Mon	all	3rd Mon	all
Nov.	1st Mon	1 + 2				
Dec.	1st Mon	1 + 2	2nd Mon	all	3rd Mon	all

The visits outside the health centre are planned so as to keep the fourth week of each month free to allow time to complete required monthly reports.

After the supervision schedule is made, health workers in the areas to be visited should be told the date of the visits so that they will be available. The village leaders should also be informed as they, or the people, may wish to talk with the health worker responsible for visits.

When the yearly schedule for supervisory visits is prepared, the arrangements must be made to have any transport needed available on the days the villages will be visited.

Planning a supervisory visit

Before making a supervisory visit a review of records should be made so that the responsible health worker will be aware of, e.g.:

- local targets to achieve the goals
- what the health worker activities are, in the programme that are going to be observed
- what progress the programme has made to date in relation to targets that have been set
- what problems have arisen in implementing the programme
- what supplies are needed.

Example

In making his work plan for August the health worker/supervisor sees that a visit is scheduled to Health Area A that month because extra supervisory help is needed for the new antenatal care programme.

To prepare for the visit the following checks are made:

1. The job description of the health worker is reviewed as a reminder of what the worker is expected to do.

2. The monthly report of the health worker in Area A is reviewed to check the number of expectant mothers who have received care. This number is checked in relation to the target set for the antenatal programme to note the progress of the programme to date.

3. Supervisory check-lists for Area A from the previous supervisory visit are checked to see if some items must be followed up, or if any on-the-job training is needed, or any other problems that may have been noted.

4. The inventory of medicines and supplies is checked to see whether supplies are needed in Area A that the supervisor could take with him when he visits.

* * * *

A small supervisory notebook helps in planning visits. Information from records kept in the health centre, which relates to the visit being prepared, can be noted in it, as well as topics to be discussed during the visit. The notebook is an informal record and notes can be made in any way that is felt to be easy and most useful.

Example

The health manager has checked records to plan his supervisory visit to the health worker in Area A. He has written in his notebook:

Area A

For visit 2nd Monday June - (check available transport during 1st week June).
Health worker began work 1 December.

1) targets being met
2) do close check of technical capability in antenatal care
3) take 2-months' supplies
4) talk with people in village to assess needs, relationships
5) discussion with midwife.

Conducting a supervisory visit

The most difficult part of supervision comes last, i.e., conducting the supervisory visit. It is important for people who have a supervisory function to remember that:

SUPERVISION IS
A HELPING PROCESS

An example of a supervisory visit is shown below

Example

The health worker/supervisor takes the supervisory check-list, notebook and needed supplies, and travels to Area A to make a scheduled supervisory visit. The first part of the visit is planned to be a check of the records to verify the monthly report information. However, the health worker at the village health centre, as so often happens, wants to discuss his own problems first. It is important to listen to the health worker and to try to discover the source of his problem.

"I have too much to do" he complains. Does he have too much to do, or is this a problem of time-management? More information is needed.

The worker's records can be reviewed with him to assess the amount of work being done. Travel conditions, scheduling of work and geographical conditions that may consume travel time would then be discussed.

It would be good supervisory practice to suggest that the worker keep a simple timetable of his activities (Refer to Part III, chapter 4, Managing time). On the next month's supervisory visit, the results could be discussed and better ways of using time suggested.

A poor supervisory approach to this health worker's problems would be to say "work faster", and then to continue with the routine supervisory visit activities. This response could result in the possible loss of a good worker because of lack of understanding and failure to listen and motivate. In such a case there would be problems of communication and relations.

Routine supervisory activities in Area A, in accordance with the supervisory plan, would be to:

- look at records to see if they are well kept and if they agree with monthly report information (targets being met was noted in the supervisory notebook).
- observe how the health worker carries out the activities listed in his job description, such as ways of cleaning equipment and storing supplies, use of opportunities to teach people about health, and giving care to the sick and injured.
- talk with the village leader and other people in the community. Do they understand and want the programmes that are being implemented? Do they feel they need other help? Encourage them to talk about their needs as they see them and how they feel these might be met.
- at the end of the visit, discuss with the health worker what has been found: good points (health centre is clean, supplies are safely stored) as well as needs for improvement (wash hands before and after caring for sick people, tell them what to do to stay well) and how improvements might be made.
- remind the health worker of the date of the next supervisory visit to the Area.

All the observations made should be noted on the supervisory check-list or in the notebook for follow-up, as needed.

When the supervisor returns to his area health centre, plans need to be made for the items that have been noted for follow-up so that information or a solution to the problem may be found before the next planned visit.

SUMMARY

THE PURPOSE OF SUPERVISION IS TO HELP THE HEALTH WORKER MAKE A PLANNED SCHEDULE FOR VISITS FOR SEVERAL MONTHS OR A YEAR AHEAD,

KEEP A NOTEBOOK OF ALL SUPERVISORY VISITS,

PLAN THE VISIT CAREFULLY BEFOREHAND,

USE A SUPERVISORY CHECK-LIST.

Chapter 3: Evaluating health activities

LEARNING OBJECTIVES

After studying this chapter and practising the instructions under supervision, the health worker should be able to evaluate/monitor/appraise:

- the achievements of a health team in terms of services delivered and their results
- the progress of the health team's work
- the performance of the health team members
- the efficient use of health team resources
- the management of the health team.

CHAPTER 3

EVALUATING HEALTH ACTIVITIES

3.1 HOW TO EVALUATE ACHIEVEMENT

To evaluate is to judge the value of the results achieved by the health team, i.e., its effectiveness (see page 21). In order to do so it is necessary to measure the extent to which the people get the services that were planned to meet their needs, and how much they benefited from those services. The information thus obtained is used to improve the services with regard to their quantity, quality, accessibility, cost etc.

Two broad questions are to be asked therefore:

- Are the results those that were intended?
- Are they of value?

The general approach to evaluation consists of five steps, viz.:

(1) Decide what is to be evaluated and select indicators of effectiveness.

(2) Collect the information needed to provide the evidence.

(3) Compare the results with the targets or objectives.

(4) Judge whether and to what extent the targets and objectives have been met.

(5) Decide whether to continue the programme unchanged, to change it, to stop it, etc.

It is often pointed out that evaluation is a continuous function. In this Chapter, however, we describe how one programme is evaluated, in a limited time period (e.g., in preparation for an annual report). The evaluation is performed by health staff, who will be given specified tasks mainly connected with collecting and analysing the information needed to make the evaluation.

(1) Decide what is to be evaluated and select indicators of effectiveness

In principle, when a plan is being prepared it should indicate how each programme or activity should be evaluated and what will be accepted as evidence of satisfactory achievement. For instance, if the plan contains the following targets:

> *"At the end of 1984 the incidence of neonatal tetanus in the 21 villages of Jaya District will be reduced to 0.1% from the present (1980) incidence of 0.5%"*

and

> *"In 1984 services will be equally accessible to all the people in the district"*

it should indicate also that the achievement of the targets will be measured by (a) the incidence (i.e., the number of new cases of neonatal tetanus in a year per 1000 live births); (b) the rate at which the incidence falls over time; and (c) the distribution of new cases among the 21 villages. (a), (b) and (c) are therefore indicators of the effectiveness of the programme.

Therefore during the plan period it will be possible by using these indicators to monitor the progress being made towards the targeted reduction of the incidence of neonatal incidence, and at the end of the period the information provided by these indicators will enable the evaluation of the target to be carried out.

If indicators have not been specified or if they have not been specified in detail during planning, the person or group responsible for evaluation must decide well before the end of the plan period what information they must collect to evaluate the achievement of the programme that is to be evaluated. Normally, baseline information is available (e.g., the yearly incidence of neonatal tetanus before the planned target was set up); if not it will not be possible to tell, except in a vague way, whether incidence is falling or whether a fall in incidence is a result of the programme.

(2) Collect the necessary information

Evaluation requires that throughout the plan period the information needed to monitor and evaluate progress is made continuously available. Thus, for purposes of our example, every case of neonatal tetanus must be reported to the monitoring and evaluation group, and arrangements must be made to obtain the information reliably and in good time, e.g., once a week, or once a month on a fixed date.

Someone (e.g., a health volunteer) must be made responsible in each village for recording and reporting the information, and a health centre staff member, e.g., the public health nurse/midwife, would be made responsible for collecting and processing the information at the end of every quarter.

(3) Compare the results with the targets or objectives

At each monitoring point (e.g., each quarter or at the end of each year) the figures obtained by the information process are compared with the targets that had been set for that period or point in time, and for each place. It will help if the information is laid out in a table that shows data by year (or other specified time period) and place (e.g., each village in a district). The data recorded in the table in absolute figures must later be changed into rates (% or (%.) to enable comparisons to be made, unless the targets are expressed in figures instead of rates.

If the only target indicated in the plan is a final target for a date several years ahead, the monitoring and evaluation group will need to set up interim (usually yearly) targets to enable progress towards the final target to be monitored.

If we return to the above example relating to neonatal tetanus, there would be three simple figures which would enable the results achieved to be compared with the targets:

- *the yearly total number of cases of neonatal tetanus reported from the entire district compared with the targeted number for that year;*

- *the yearly number of cases of neonatal tetanus observed in or reported from each village compared with the number reported in the previous year;*

- *at the end of the plan period, the mean annual incidence (the number of new cases) of neonatal tetanus in each village (i.e., the total number of cases in each village during the five-year plan period, divided by five).*

Comparing these figures on a year-to-year basis shows whether the district totals decrease in line with the targeted trend; whether any village has more cases of neonatal tetanus than previously - thus indicating where to focus attention; and at the end of the period, whether any village has had a higher incidence of neonatal tetanus than others - thus indicating uneven access, distribution or quality of services.

The time to make this comparison might be in the last quarter of each financial year; that task would fall on, say, the nurse-midwife in charge of neonatal tetanus; the resulting information should be made available to the group in charge of monitoring and evaluation, preferably in the form of tabulated figures and written conclusions.

Exercise C.1 on page 354 offers an opportunity to the reader to apply this step practically.

(4) Judge the degree to which the results achieved have been of value

Once the measurements and comparisons have been made the evaluation group must judge the value to the community of what has been achieved. In the example given here the judgement is a simple matter of whether the annual and total incidence of neonatal tetanus has been reduced to the targeted figure, and the distribution norm (e.g., no more than one case per village) has also been met. There may therefore be little more to discuss, if the principle of 'management by exception' is applied (see Part I Chapter 1). But it is usually advisable to hold a meeting to discuss the results and how they were obtained even when an objective or target has been achieved. For instance, it may be that the target could have been achieved sooner with no more effort or that a better target could have been achieved with the same effort. At any rate, the experience gained in achieving a target or objective is likely to be valuable for other programmes.

When the result achieved falls below what was expected the reason for the shortfall must be explored and analysed. This should take place before the annual report is made so that remedial action may be proposed to the higher, supervising level. The discussion on the causes of the shortfall should include a member of the health team, a health volunteer from the villages or areas where the shortfall occurred, and a representative of the community.

(5) Deciding on the further course of the programme or on other uses of the evaluation findings

When targets and objectives have been satisfactorily achieved, on the principle of 'management by exception' no new decisions are needed, except to continue as before. When achievement has not been satisfactory, one type of decision may be to investigate in depth the causes of the shortfall by means of assessment, appraisal of staff performance management audit (see 3.5 below) or otherwise. A different kind of decision might be to re-assign staff or resources to strengthen the effort where needed. These decisions are for the team leader to make; they should be made promptly and communicated to all concerned for immediate action.

3.2 HOW TO EVALUATE WORK PROGRESS

Work progress is evaluated in order to measure the efficiency of the health team, i.e., to find out whether the team completed the work which was assigned to it in order to reach its targets (quantity), the work was of the expected quality, was carried out in time, and its budget was not overspent.

The basic questions to be asked, adapted from Part I, Chapter 5, are:

Are the results those which were intended?

If not, why not?

The evaluation process goes through the same five steps as have been covered in the previous chapter, viz.:

(1) Decide what to evaluate and select indicators of efficiency;

(2) Collect the necessary information and measure the achievements;

(3) Compare the results with the norms and targets;

(4) Judge the value of the work achieved; and

(5) Decide what to do next.

(1) Decide what to evaluate and select indicators of operational efficiency

At the planning stage, the work of the health team would normally have been specified in some detail in the plan of action. It would list the specific activities that should be performed (services to be delivered, development work, and support tasks). It would also clearly indicate what the activities should achieve, who should perform the activities, when each activity should take place, and how each activity would be related to the others.

If this is done, the selection of efficiency indicators for evaluation purposes is not difficult. They are: whether the planned activities were completed; whether they achieved their targets; and whether they did so on time, and with the assigned staff and other resources.

If there was no detailed plan of action and therefore no ready-made indicators of efficiency, and much of the work has been completed, the team leader must decide whether an evaluation shouldbe attempted. If so, the evaluation group must list all the regional activities that should have been carried out and what they should have achieved. This alone would be a waste of time, but it is a useful exercise if it enables the evaluators to identify which resources were critical for the success of the activities or, if the activities did not achieve their targets, which critical resources were lacking. Since it will be possible to evaluate only a few activities among many, they must be carefully chosen. The criteria for choosing the activities would be, e.g., that they must be completed before many later activities can begin, or that they use a large amount of critical resources.

For instance,

> *To control neonatal tetanus in Jaya District, the three critically important preceding activities are: TBAs to be retrained in sterile handling of cord (a development activity); mothers immunized at antenatal clinics (a service activity); messages on prevention of neonatal tetanus diffused among the people (a support activity). The first one is selected because retraining is critical, and trainers are a critical resource in short supply; the second and third because mothers must be motivated before they demand immunization and choose to be delivered by retrained TBAs.*

The activities to be evaluated should be selected at least one year before a report is due. They should be selected by the staff member in charge of neonatal tetanus - probably the public health nurse-midwife. The selected activities should be reviewed with those who will later take part in collecting information about them and analysing it, to ensure that it will be possible to obtain the necessary information from the field.

(2) Collect information and measure achievements

The results of activities (operational outputs) may be measured in many ways. Thus, in the above example "retrained TBAs" may be measured as the number trained per month, or the total number available in each village, and/or the number of TBAs having passed some qualifying test. The operational output "Mothers immunized" may be measured as a number, or expressed as a percentage of pregnant women, by village, or in the district. The operational output "Message diffused" may be measured at the source (newspapers, radio, TV, etc.); at the receiving end (individual mothers reached); or at some intermediate point (e.g., village heads transmitting the information) etc. As a rule, achievements should be measured in the same terms as those in which the targets were set, or at least in terms that can be related to the set targets. When there is a choice, the more easily (or cheaply) measurable achievements should be measured, provided that ease of measurement will not result in unreliable information.

> *In Jaya District:*
> *three indicators of efficiency were chosen for evaluating the work progress of a health team; a) the yearly number of immunized pregnant women expressed as a percentage of the total number of pregnant women; b) the yearly additional number of TBAs retrained, as a percentage of total practising; and c) the proportion of village heads transmitting five or more messages. This entails the continuous monitoring of immunizations of all antenatal clinics and estimating the total number of pregnancies in one year; recording newly retrained TBAs at each successive course; estimating the number of TBAs practising at some point in time; and surveying once a year all the village heads.*

This example deals with the information to be collected. The three tasks of collecting, recording, and reporting and processing would have to be assigned to the staff in charge respectively of the services, the training and the support activities. The timing would be, for example, monthly collection and reporting, quarterly processing, and yearly summing up.

(3) Compare achievements with norms and targets

So that achievements may be compared with norms and targets, here again the available information should be tabulated, to show the results of the training, immunization and communication activities against the corresponding norms and targets. Assuming yearly evaluations, such tables should present results for the completed year. Furthermore, in order to keep track of where activities took place, results should be presented for each village or geographical area.

Depending on the indicators which were selected, especially if they were expressed as rates or ratios, the numerators should be included in the tables; i.e., for the above example, it will be necessary to show the total number of pregnant women in the villages and of registered or practising TBAs in order to find out the rate of immunization coverage and the proportion of TBAs trained.

To monitor the progress of activities which must be carried out before certain specified dates it may be necessary to prepare tables each month to show the position at the end of each month or quarter.

For instance,

> *For Jaya District, such tables might show whether the TBA retraining programme had achieved its target in the district as a whole; in which villages the training of practising TBAs had been completed, in which ones it was still continuing, and where it had yet to start. Similarly for immunization activities successive tables should show the district coverage, the coverage of each village, and consequently where the targets had been reached, where they have not been reached, and where activities had not yet begun. Likewise the communication of messages to the public by village heads would be presented in a table in such a way that it shows which villages have been well covered, poorly covered and not yet covered.*

Based on such tables the results can also be recorded on maps to show the geographical pattern of efficient work progress and of target achievement. This can help to identify factors that help or interfere with the team's performance.

(4) Judge the degree to which norms have been satisfied

If information has been analysed and presented in tables as described above, each indicator can be reviewed separately, and in relation to the others. Mapping also helps the evaluators to judge how far norms and targets have been satisfied in the district as a whole. Successive monthly or quarterly tables can show to what extent targets are being achieved within the time specified for them.

It may be found that one of the activities being evaluated appears satisfactory in relation to the corresponding target, but that the other activities have lagged behind. For instance:

> *In some villages of Jaya District, it is found that the training of TBAs and the diffusion of messages by village heads are up to expectation (targeted level), but that the immunization coverage is found to be far below the district average.*

In this kind of situation it may be useful to study the relation between these three activities in other villages. Such a study may show that a group of villages, all close to each other, have the same kind of results though not necessarily the same results. For instance:

> *A number of villages in north-east Jaya present the same picture: good message diffusion, no training activities, and a satisfactory immunization coverage.*

This suggests that something is interfering with or taking the place of retraining of TBAs. This must be identified in discussion with the health workers concerned and with people from the villages. It will then be possible to judge the results on the basis of a clear understanding of the local situation.

It is also helpful in judging work progress and operational output to take into account the results of the programme (i.e., its effectiveness), as discussed in 3.1 above. It should be remembered that operational outputs are not ends in themselves but rather means towards successful results, e.g., no case of neonatal tetanus. Analysis and discussion should show whether good results are necessarily the outcome of good achievements; and conversely, whether good work progress automatically means good results. Also it might show whether one activity (say immunization) is more frequently associated with good results than others.

This kind of analysis is extremely important: adequate staff should be assigned to undertake it, and they should have enough time to do it. When the information provided in the tables is good, the time spent on interpreting and understanding it is well spent: this is where learning takes place for all participants. The whole health team should study it. The conclusions should be communicated to the decision-makers who control the programme at higher level, and to participating staff and agents, in preparation for the next and final step.

(5) Decide what to do next

Two types of decisions are required at this stage: whether performance must be further assessed, and whether the programme needs to be improved.

Regarding further in-depth assessment of performance, the team leader may assign one staff member to study the available material as a means of appraising staff performance (See 3.3 below). As regards improving the programme the team leader may await the results of appraisal of staff performance, or according to his judgement he may introduce certain changes in the programme. For instance, in our example the team leader may:

- *schedule work in such a way that the three component activities (training, information and immunization) are coordinated, i.e., ensuring that in villages where one component has been achieved (e.g., TBA training) the others are also carried out, and vice versa.*

- *change some of the TBAs' work instructions, and redesign the corresponding retraining curriculum, so that immunization of pregnant women gets the necessary attention; or offer some incentives to the TBAs to increase the demand for immunization.*

3.3 APPRAISING[a] STAFF PERFORMANCE

It will be recalled that the main purpose of evaluation is to learn from experience. Staff performance is appraised in order that staff may learn from experience and therefore perform more efficiently.

One specific purpose of staff performance appraisal should be to measure the actual contribution of each staff member to the team's work output against the standards set by the team itself, and to enable decisions to be made about the staff's learning needs.

The two basic questions are as before, but here concerned with staff performance:

Are results as good as they could be?

If not, why not?

The method will again consist of five steps, viz.: (1) Decide what to appraise and select indicators of satisfactory performance (2) Collect the necessary information and measure performance (3) Compare it with norms (4) Judge the degree to which norms are satisfied (5) Decision.

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[a] To appraise means to estimate the value of. The words 'appraise' and 'appraisal' are often used instead of 'evaluate' and 'evaluation' or 'assess' and 'assessment' when the performance of staff is being judged.

It should be emphasized at the outset that appraising performance is not done to find fault with staff, even when results are not as good as intended. Rather it should be understood and appreciated as the way to help each staff member to perform efficiently, and therefore to feel gratified at achieving results.

As usual in describing evaluation activities there must be rules which state who is responsible for making the appraisal, the date when the appraisal is due, the period covered by the appraisal, the information needed to make the appraisal, and the information needed from the appraisal (e.g., a performance appraisal report).

(1) Decide what to appraise and select indicators of performance

Three fundamental documents should normally contain all the indicators required to appraise performance. These documents are:

- the job description
- a work plan (or work assignment, work schedule or work instructions)
- technical procedure manuals.

The job description, discussed in Part II, Chapter 3:

- lists the functions which a staff member is expected to perform, e.g., rendering services, conducting research, undertaking surveys, training students, maintaining equipment; keeping accounts, etc.;
- states to whom (hierarchical supervisor) the staff member is accountable for the performance of these functions;
- states for whom (hierarchical subordinates) the staff member is responsible in the performance of their functions;
- indicates with whom (peers, partners) the staff member is to coordinate in the performance of joint functions.

The work plan (- described in Part III, Chapter 4):

- assigns the specific activities and tasks a staff member is to execute as part of his function(s)
- describes in detail the services a staff member has to deliver.
- specifies the amount of the services (and often the persons or groups who should receive them).
- states where these services have to be delivered.
- schedules when they are to be delivered.

Technical procedure manuals usually describe in some detail how to perform specific tasks with a strong technical content, like immunizing, conducting workshops, writing health education materials, etc.

When job descriptions, work plans and technical procedure manuals are included in plans, the search for performance indicators is simple. When they have not been prepared in detail, performance appraisal begins with ascertaining the description of staff functions, activities and tasks, from management, from the staff themselves, from subordinates and/or users of the services as the case may be. In this situation, it will be rare that there is complete understanding and agreement between those directly concerned. Such lack of agreement makes performance appraisal difficult, and its conclusions indefinite.

In either case, a limited number (1-5) of the most suitable performance indicators will have to be selected. The activities and tasks that should be taken as a basis for the appraisal of staff performance should be activities and tasks that make the most contribution to the health team's efficiency and effectiveness, such as organizing, coordinating, monitoring, and controlling.

For instance:

> *In the case of the nurse-midwife in charge of controlling neonatal tetanus in Jaya District, the functions, activities and tasks she performs in that programme are: i) to organize, ii) to coordinate, iii) to monitor, and iv) to control; her performance should be judged against a) the results achieved, b) the services delivered, c) the TBAs retrained and d) the messages reaching the community.*

Corresponding indicators of performance would be:

- for i) organization: (c,d), the timely completion of planned courses for TBAs and the diffusion of messages;
- for ii) coordination: (b,c,d), the proportion of villages reaching the targets for services, training and diffusion of messages;
- for iii) monitoring: (a,b), the availability of up-to-date statistics on incidence of neonatal tetanus and on immunizations, from all parts of the district;
- for iv) controlling: (a reserve indicator), the absence of work stoppage because of shortages of funds or vaccine.

As is clear from the above example, it is assumed that the managerial functions of the nurse-midwife are critical to programme success. In other situations and programmes, the technical functions, or public-relation functions, might be more suitable functions for performance appraisal.

The team leader and his staff should jointly set indicators of performance. This should be done for each staff member on appointment, and annually as part of the planning process.

(2) Collecting information and measuring performance

The information required for the selected indicators of performance should be collected. Thus, in the above example the information to be collected would include dates of completion of planned courses and of diffusion of messages, the proportion of pregnant women immunized and the number of cases of neonatal tetanus occurring in the period under review, and the number of villages where targets for services, training, and the diffusion of messages were reached.

As far as possible the information should be obtained through regular channels and procedures, but a special effort may be needed to collect some of the required information.

For instance:

> *Dates of completion of TBA retraining courses, names of villages reaching the target levels of outputs, and how far the statistics lag behind, would be known routinely; but a special enquiry might be needed to obtain details on the diffusion dates of messages by village heads, on work stoppages, and on shortages of funds or vaccine which may not be automatically recorded.*

This kind of special task is best performed by the staff themselves, as part of the regular monitoring of service and other activities for which they are primarily responsible. In delegating this task to them, management enables staff to be the first to learn of their own successes and failures, and to adjust their performance when necessary.

(3) Comparison of observations with norms and standards

Since in most instances indicators of performance are chosen in relation to operational or time targets, and measurement of performance relies primarily on the routine monitoring of programme activities, comparison of intended and actual performance does not cause special difficulties.

For instance;

> *Excerpt from performance appraisal for 1980, of Ms Vijayalakshmi, PHN, Jaya District:*
> *'Organizational performance: All four courses for TBAs were completed as scheduled in her health area, with the target number of trainees.*
> *Coordination performance: 3 villages reached target levels of the 3 activities which she coordinates, against an expected 6 in 1980.*
> *Monitoring performance: she maintains her operational statistics up to date Vital statistics (births and deaths) are one month behind.*
> *Control performance: No work stoppages occurred during the year in her health area.'*

It is usually argued that, to avoid bias, this task should be performed by management, and not by the staff member. However, where the management functions are shared by all staff, and when objective indicators of performance have been agreed upon by the staff concerned and the team leader, there should be nothing wrong with entrusting a staff member's performance appraisal to the staff member, subject to review and approval by the responsible officer. The timing should satisfy the regulations of the national administration.

(4) Judging the degree to which staff performance meets the required standards

The comparison in (3) needs interpretation for two reasons. For one reason, not all aspects of staff performance are equally important; for another, success in one area must be balanced against failure in another. The evaluator must use judgement here, and may need additional information and results of tests of knowledge and skill before he can make a judgment.

For instance:

> *Subject: Ms Vijayalakshmi's performance. Summary and Conclusions of Team Leader: She proved a good organizer, and keeps informed of work progress, thus holding firm control over the programme. She would benefit from support in coordination tasks, based on her own assessment (on attached questionnaire) of her*
> - *oral communication ability*
> - *problem-solving ability*
> - *ability to hold meetings*
> - *ability to resolve conflict.*

To pass such judgement, obviously, the team leader must have assessed some of the possible causes of the apparent poor coordination performance of the staff member, obtained some informal views on what could explain it, and concluded that her coordinating abilities could be improved by training. But the team leader wants the staff member to identify her priority needs.

It is evident from the above that judgement is a team leader's responsibility. Such judgement should be made, however, in open discussion with the staff.

(5) Decision on further action concerning the staff member

As we have seen above, a possible decision following staff performance appraisal concerns further staff training. It might require further in-depth analytical review of events, or of the range of ability of the staff member. But it would often affect programme activities as well, such as re-assigning certain tasks to other staff with the requisite skill or ability; strengthening some coordination or control mechanism: or simply communicating certain information to the concerned people. The one thing any decision must do is to show that appraisal of staff performance is not against staff but is for the team's efficiency and effectiveness, and thus, ultimately for job satisfaction.

The responsiblity for such decisions rests with the team leader, of course, but the wise team leader makes sure that the affected staff takes part in making the decision.

3.4 EVALUATING USE OF RESOURCES

Elsewhere in this Guide the concept and method of monitoring and control has been introduced, as a management tool for day-to-day decisions about the allocation of resources. What then would be the purpose of evaluating the use of resources as distinct from monitoring and control? Evaluating the use of resources differs from monitoring in that it tries to discover how the resources used were related to the results achieved over, say, one year, or to the operational outputs produced, with a view to answering the following questions:

- Could some resources achieve better results/outputs?
- Could some results be achieved with less resources?

These questions are the two sides of the same coin. In management terms the first deals with 'cost-effectiveness' and the second with 'cost-efficiency'.

Here we consider some practical applications of these concepts. We follow the same steps as for evaluating the effectiveness of results (3.1 above), the efficiency of operational outputs (3.2 above), and the performance of staff (3.3 above); viz. (1) Decide what to evaluate and select indicators (2) Collect information on the use of resources and measure resource use; (3) Compare the findings with norms; (4) Judge the degree of norm satisfaction, and (5) Make appropriate decisions.

Also, as usual, the assignment of these evaluation tasks to staff, the scheduling of the tasks and the information requirements will be specified as far as possible.

(1) Decide what to evaluate and select indicators of resource use

One of the most useful indicators for evaluating the use of resources will be the 'amount of specified resource used for delivering some unit of work or achieving some unit of result'. This may sound complicated, but it is not more complicated than when you say "my motor-bike runs 100 km on 2 litres of petrol" or: "my bike uses 3.5 litres to take two passengers to the city". These are examples of 'unit-costs' in terms of petrol consumption.

In order to select 'unit-costs' for evaluating the use of resources in relation to results and outputs, it is necessary to identify critical results or outputs, and the scarce resources consumed in achieving or producing them. This is, once more, applying the principle of management by exception: look for the most important and do it first. This must be the rule because evaluation of resource use is an elaborate and time-consuming process. Referring once more to the now familiar instance:

> *In Jaya District, control of neonatal tetanus is measured by the number of cases prevented; the most immediately relevant operational output is immunization of pregnant women; and money is the scarcest resource available to the health team. The cost of preventing one case of neonatal tetanus, and the cost of one immunization, would be suitable indicators.*

Such indicators should in principle have been specified as part of planning, so that all concerned would know that they would be used in due course for evaluation. But the administration or the team leader (or even, a village head) might want to evaluate resource use in the course of the programme. In that case, indicators should be selected at least one to two years before findings are expected.

(2) Collect the necessary information and measure resource use

We have seen how results and operational outputs are monitored and reported in previous chapters. Accountancy of funds is also described, in Part III. The difficulty we may encounter with this method in practice is that (with reference to our example) TBAs may be trained in some places and not in other places; in some places less than 5 messages may be diffused, in others more than 5; immunization coverage may be low in some places and high in others. Obviously the cost, and effectiveness, of the programme will vary from village to village, because of these differences. So it will not be useful or justified to estimate unit costs for the district as a whole. On the contrary, measurement of resources used (here expressed as costs) should be made in full awareness of these differences, in the hope that from the extra effort required, we shall learn more. For instance:

> *In Jaya, separate unit costs of immunization should be measured: (a) by incorporating the cost of TBA retraining and the cost of message diffusion, where these activities occur, and (b) by excluding them where they do not.*

If information about cost is collected in this way, comparison will mean more. This task of cost measurement is an accountancy task, for which normally few health staff would be trained. Where it is intended from the beginning to evaluate resource use, accounting skills should be brought into the team on a more or less continuous basis throughout the implementation of the programme.

(3) Comparison with norms and standards

In relation to resource use there are no pre-existing norms or standards: they will emerge as an outcome of evaluation. For if the question asked is "can we do more with these resources?" the highest observed output per unit of resource from among a series of observations will become the norm. Conversely, if the question asked is: "Could we do as well with less resources?" the lowest cost per unit of output will become the norm. For instance:

> *In Jaya district the unit cost of immunization is $0.70 where TBAs are retrained and messages diffused; the coverage there is 75%. Where immunizations only are provided, depending on the coverage achieved, the unit cost of immunization varies from $0.50 $0.60, but the coverage does not exceed 60%.*

Costs and coverages are compared. The evaluator must use judgement.

This task needs time, skills and information that are not easily acquired. This kind of evaluation would normally require support from the health administration.

(4) Judge the degree of norm satisfaction

When the cheapest approach to achieving a stated result has been found, we have a basis for questioning the other approaches. Similarly when we have identified the highest output within stated resources, we can discuss how the lower outputs were achieved. Such discussion will be very important for improving the programme strategy. Who undertakes these discussions, and where and when, will depend on a country's administrative structure.

(5) Decisions on future use of resources

What kinds of decisions are likely to result from such discussions? One kind might be to drop one component of the programme if it adds more to costs than it improves results. Another kind might be to accept less ambitious coverage targets in future, unless more resources can be provided. A third kind would be to persuade the authorities to raise the budget level to enable the team to fulfil its targets. Such decisions are normally made at levels higher than the level of the health team, but health teams should be aware of the potential usefulness of such a type of evaluation for higher-level decision-making. The health team may not by itself make these decisions, nor even answer all questions, but this should not prevent it from asking them; asking a question is already part of the answer. With this kind of evaluation fed back to the planners, we shall have satisfied all the principles of management discussed in Part I.

3.5 THE MANAGEMENT AUDIT

A management audit is a method of reviewing management activities. It is a check-list of questions related to management. It can be used as a tool for health workers with management functions to examine their successes and failures (self-assessment), or it can be used by supervisors to assess the management efficiency of an organization.

Management audits can be detailed and elaborate and cover every aspect of management organization, or they can be short and simple and ask a few questions that can be used as indicators of the general level of organization and efficiency.

A management audit is a summary of all operational control processes. When the management audit is repeated, note is taken of results of action taken following the previous audit.

An example of a simple management audit for a rural health unit can be found below. This covers some of the management functions described in Parts I, II, III and IV.

Example of management audit for a rural health unit

Under the date of the audit, write Y (Yes) or N (No) opposite each statement.

1. PLANNING AND ORGANIZATION	*DATE*	*ACTION*	*DATE*	*ACTION*
The health centre has one or more identified objectives	*2.1.81* *Y*	*Immunize 400 children*	*3.1.82* *Y*	*Completed*
These objectives are known to the health team				
Regular staff meetings are held				
A year-plan has been written and displayed				
There is a weekly timetable				
Staff duties are listed on a roster				
District activities are scheduled in advance				
Changes in rosters, schedules or other events are clearly communicated to the health team				
2. PERSONNEL				
Each member of the team has a written job description				
Each staff member knows to whom to report and from whom to receive instructions				
The team leader delegates work wherever possible				
On-the-job training is aided in different ways - by discussion, books or demonstration				
Good work is acknowledged by the team leader				
Opportunity exists for initiative and responsibility in the work				
Supervision takes the form of educating and helping and not criticizing				
Workers are using the skills for which they were trained				

	DATE	ACTION	DATE	ACTION
Team members show concern for the welfare of patients				
3. RESOURCES				
The account ledgers are in order and up to date				
The petty cash balance sheet is correct				
There is sufficient equipment				
The stock ledger is balanced and corresponds to the store shelves and inventories				
Drug issues are recorded and reviewed				
The A/B shelf system is used for vital drugs				
There are minimum queues and 'bottle-necks' in the outpatient clinic				
There are adequate and clearly marked maps of the district				
The transport system is well maintained				
4. DISTRICT AND PUBLIC				
There is a health centre committee of persons within the area				
Efforts are made to educate the public in health				
The health needs of the public are discovered and discussed				
The health goals and activities relate to public health needs				
The following health activities are expanding:				
- maternal and child clinics				
- immunization				
- nutrition programme				
- sanitation programme				
5. CONTROL SYSTEM				
There are monthly statistical reports				
There is an annual report				
The patient registers are clear and up to date				
Patient records can be found when necessary				
Carbon copies of letters are made and filed				
There is an index of files and registers				
There is a well-kept log in the transport vehicle				
There is a method to identify discrepancies in drug usage				

Exercises

PART IV

Chapter 1

PLANNING HEALTH ACTIVITIES

EXERCISE A.1 Finding out the facts

Objective: To identify information that will contribute to solving health problems.

In order to solve a problem one must find the cause or causes of the problem. To find the cause, selected information is needed. In this exercise the problem is diarrhoea among children under three years of age.

Individual or sub-group

1. Read pages 272 - 275.

2. Identify the information you will need to help solve the problem of diarrhoea (infant feeding, excreta disposal, etc.).

3. Select for study an area in the community (a village, a street, a hamlet). Plan how many families you will visit.

4. Using the village survey form on page 273 , fill in the information asked for in each column. Make sure you obtain the information you identified in Step 2 above.

5. When you have completed the survey forms for all the families you planned to visit, extract information which is related to the problem of diarrhoea. List this information.

6. For each item you have listed write an action which will contribute to solving the problem (see the example at the end of this exercise).

Large group

7. Discuss your findings and actions that could be taken.

8. Select a different health problem in your area. Using the completed survey form, repeat Steps 2, 5, 6 and 7.

Example. Diarrhoea

Useful information collected from households	Action proposed
Number of children under 3 years of age.	Family health education (detail activities: for example, nutrition education, family planning, hygiene).
Potential risk of diarrhoea.	
Previous death of child in family due to diarrhoea.	
Extent of problem: number of children who died of diarrhoea in a given period of time.	

Useful information collected from households	Action proposed
Sick family uses its own remedies to treat the problem	Identify remedies. Change/modify if necessary.
Location: lives too far away from health worker	Study possibility of health worker visiting village and/or training village aid.
River water only available. No excreta disposal (family uses open spaces).	Contact health department. Seek advice of health inspector. Meanwhile, arrange for excreta to be buried and water to be boiled, if feasible.
Feeding customs. Solid food not given until child has teeth.	Practical nutrition education for women.
Transport: by donkey only.	Health worker to use donkey to visit village.

EXERCISE A.2 Establishing priorities among health problems from survey information

Objective: To list problems identified in a community.

To select priority problems according to criteria.

A survey was made in village X to obtain information about community problems.

The following is some of the information obtained from the survey:

- Many people cough and spit all the time: they sweat at night.
- Sometimes when people cough they spit up blood.
- Many large families have to live in only one or two rooms.
- Most of the village people are very thin.
- When people get the coughing disease they try to hide it.
- People in the village sit around a lot or have to lie down often during the day. They say they find it hard to do their work.
- They say that when one family member starts coughing a lot the others in the family will start coughing too.
- There is no road to the village and the nearest town is two days' journey by mule.
- Very few people from outside the village visit it.
- The district health worker can come only one day a month, in the dry season.
- The children are often hurt because they plan in the forest outside the village.
- Some people wanted to make a garden but they had no implements to do the work.
- People get their water from a well in the village.

Sub-group

1. Read pages 279 - 283.
2. Study the situation described above.

3. Identify the problems related to:

   (a) health problems and diseases

   (b) communications

   (c) health services

   (d) other factors affecting health,

4. Applying criteria as described on page 281 , put the problems you have listed in Step 3 in order of priority.

Large group

5. Compare the orders of priority written by each sub-group. Write a final list of problems in the order of priority agreed upon by the whole group.

EXERCISE A.3 Studying a community to establish health service priorities

Individual or sub-group

1. Select an area in the community (village, street...) for study and complete a community survey using the village survey form shown on page 273.

(Note: The teacher may wish to use the survey forms completed for exercise A above).

2. Identify the priority problems from the survey information, using the procedure for Steps 3 and 4 in Exercise B above.

EXERCISE A.4 Stating programme goals

Objective: To set measurable operational targets for a programme.

Individual

1. Read pages 285 - 291.

2. Study the example given on page 289. If the population of the village is 5,000 determine

   a) the total number of pregnant women;

   b) the operational target set at district level.

3. If the total population of the same village is 8 000, and the birth rate is 35/1 000, determine the operational target set at district level.

EXERCISE A.5 Stating operational targets

Objective: To determine operational targets.

The Ministry of Health has set a national programme goal to reduce the incidence of measles to zero within a five-year period: 1981-1985. The local (district) target to achieve this goal is to vaccinate against measles all children aged 0-1 years over a five-year period, beginning in 1981.

Individual

1. Read Examples 2 and 3, on pages 289 and 290.

2. Using the procedure described in that example, estimate the target number of vaccinations for the year 1981 if

- the total population in the district is 10 000, and
- the birth rate of the country is 40/1 000.

EXERCISE A.6 Dealing with obstacles

Objective: To identify obstacles which may prevent achievement of an objective.

The Ministry of Health has set a national programme objective to reduce the incidence of neonatal tetanus to zero.

Authorities at the local level wish to "break down" the national objective. One action has been proposed: "to vaccinate with tetanus toxoid all pregnant women." An operational target has been set.

Individual or sub-group

1. Read pages 293 - 295.

2. From your own experience, list some possible obstacles that might interfere with the achievement of the national objective to reduce the incidence of neonatal tetanus to zero.

3. Review your list of obstacles identified in Step 2. Action No. 1 has already been proposed, i.e., to vaccinate with tetanus toxoid all pregnant women.

Suggest two other complementary actions which will be necessary to solve the problem of neonatal tetanus in the community. (Note: See page 299 for examples of obstacles and solutions).

4. Study the example of a listing of resources on page 300. Prepare a similar table to include:

- the types of resources that are needed and
- the types of resources that might be available for each action;

Sub-group

5. After reviewing the resources needed and available for the three actions proposed to reduce the incidence of neonatal tetanus to zero, select the action that the group feels to be the best of the three for a district to take immediately.

6. Answer this question: Given the resources available is action No. 1 (vaccination with tetanus toxoid) the best means of contributing to the national programme objective?

EXERCISE A.7 Evaluating a school health service

Objective: To review the local school health service to see if it is achieving its objectives.

Individual or sub-group

1. Review the school health service in your local community. If there are no school health services, pass to Exercise H. below.

2. Find out what the objectives of the school health service are, by asking the Ministry of Health or the Ministry of Education for this information.

3. Study the objectives. Are they feasible, relevant, measurable and observable? (Review pages 286-291 if necessary). If yes, proceed to Step 4. If no, proceed to Step 7.

Sub-group or large group

4. Discuss progress towards achievement of the school health service objectives, bearing in mind time limits.

5. Identify obstacles, if any, which prevent achievement of these objectives.

6. Prepare a table similar to the model on page 295, and enter in it the information you have collected in Steps 2, 4, and 5.

7. If your answer is no in Step 3, review the local situation and set new objectives for the school health service that have a better chance of being achieved.

EXERCISE A.8 Reviewing obstacles/limitations

Objective: To identify obstacles to a health activity and suggest ways of overcoming them.

Sub-group or individual

1. Read pages 293 - 295.
(an example of reviewing obstacles to an antenatal programme).

2. Identify obstacles to school health activities/in your area.

3. Using the framework on page 295 list the obstacles in the appropriate column of a table you have prepared.

Large group

4. Discuss the obstacles. Are there obstacles that can be removed or modified?

5. If obstacles can be overcome, write objectives for a school health service which have a good chance of being achieved in your area.

EXERCISE A.9 Planning activities

Objective: To plan activities to reach measurable objective.

A BCG vaccination programme is to be organized as part of the tuberculosis control programme. The operational target for the village of Kusang, one of the districts in the country, is to vaccinate 80% of children 0-1 year old with BCG during the period 1 January 1981 - 31 December 1981.

Sub-group

1. Read pages 296 - 306.

2. Refer to the example on page 305 to outline your plan for a BCG vaccination programme.

3. List the main activities needed to reach the operational target specified for the village of Kusang. Expand this list as described on pages 303 and 304.

4. Review Annex 3, page 308 and Annex 4, page 309. Then list the requirements to carry out the main activities you have identified in relation to:

   i) number of health workers
   ii) equipment
   iii) budgeting for equipment
   iv) job description of health workers
   v) information system

5. Using the guidelines on pages 88-92 and Annex 2, pages 306 - 307 , write a job description for the vaccinators. Review the activities you have listed in Step 4 above to see if you have forgotten any.

6. Study the examples of timetables on pages 305 and 316. Using the model on page 316 plan the necessary sequence and time targets if you are to start your BCG vaccination programme on 1 January 1981.

7. Repeat this exercise for an operational target in relation to another disease in your district.

EXERCISE A.10 Writing a plan

Objective: To write a plan to achieve a target.

Individual or sub-group

1. Read pages 303 and 304.

2. Refer to the activities, sequence and time targets you planned in Exercise 1 above.

3. Refer to the seven guideline words on page 303.

4. Write a plan for the activities you developed for Exercises I above, using the guidelines provided in the text.

Reading:

Pages 268 - 317.

Chapter 2

IMPLEMENTING HEALTH ACTIVITIES

EXERCISE B.1 Controlling the health programme

Objective: To write a supervisory check-list for controlling the quality and activities of a programme.

You are planning a visit to a local district to see how the measles vaccination programme is progressing. You wish to use a check-list to gather information about the skills and capabilities of the health worker assigned to the programme.

Individual or sub-group

1. Read pages 312 - 328.

2. Study the example on pages 321/322. Prepare a check-list to review quality and quantity of work in the measles vaccination programme in the district.

3. You have received the following monthly progress reports for the measles vaccination programme:

January	45 vaccinated
February	23 "
March	19 "
April	18 "
May	15 "

Refer to the example on page 321 . Make a cumulative total of the number of vaccinations given for each month from the data you have received.

4. Review the 1981 operational target for measles vaccinations, in Exercise A.1 for Chapter 1. Compare the cumulative total with the target. Do you think that the target will be met by 31 December 1981?

5. If you have answered "no" to the question in Step 4, list some management tools you could review in order to help you to find the causes of problems that may be interfering with the achievement of your operational target (e.g., community survey chart, operational target, etc.).

Large group

6. Compare individual results of the check-list prepared in Step 2 and the management tools identified in Step 5.

EXERCISE B.2 Redirecting the health programme

Objective: To list steps that a manager should take when control information indicates that operational targets are not being met.

In Exercise B.1 above, you found that the measles vaccination operational target of 400 vaccinations was not being met. After reviewing your supervisory check-list for quality, you found that the vaccination programme was neither wanted nor accepted by the community.

Individual or sub-group

1. Read pages 88 - 123, and pages 318 - 323.

2. Suggest actions you would take as a manager in order to redirect the measles vaccination programme. Specify the requirements for different elements to be considered in the redirected programme, as in the following format:

ELEMENT	REQUIREMENTS
Survey to find out facts about how the community reacts to the programme.	- visit community leader - make visits to and talk with people in the community - discuss the health worker's point of view about how the programme was carried out.

EXERCISE B.3 Managing the supervisory programme

Objective: To list sources of information used in planning for a supervisory visit.

Before making a supervisory visit to a measles vaccination programme, the manager must collect relevant information.

Individual or small group sub-group or large group

1. Read pages 318 - 323.

2. List the information which you as a manager should review before you make a supervisory visit to the measles vaccination programme (e.g., what the target is, who is in charge of the programme etc.)

3. Discuss how this information will be useful to you.

4. Refer to the example of a supervisory visit to area A on page 326. Write a similar plan for your supervisory visit which is based on Steps 2 and 3 above.

EXERCISE B.4 Dealing with a complaint about a health worker

Objective: To suggest ways of dealing with a problem in relation to the community.

During your supervisory visit to the village, the village leader requests a meeting with you. When you have completed your supervisory activities you meet with him. He tells you that the people are dissatisfied with their village health worker.

Sub-group or large group

1. Read the example of a supervisory visit on page 326.

2. Discuss ways of dealing with the above problem.

Reading: Part II, Chapters 3 and 4, pages 88 - 123.

Part IV, Chapter 2, page 311.

Chaper 3

EVALUATING HEALTH ACTIVITIES

Comparing achievements with norms and targets

Table I below presents the observed occurrence of neonatal tetanus in Jaya district, by village and by year from 1979 to 1984. 1979 is the base year from which targets have been set. In that year there was 13 cases in villages A - K, out of a total number of 6500 births - an incidence of 0.2% for the whole district.

1984 is the final year of the plan period; the targeted incidence for 1984 is 0.1%, which must be expressed as a number of cases in the district. Assuming that in 1984, 7000 pregnancies can be expected, the target number of cases of neonatal tetanus is 7 in 1984.

EXERCISE C.1

Write down the number of cases you expect in the entire district in the intervening years; 1979: 13; 1980:...; 1981: ...; 1982: ...; 1983: ...; 1984: 7.

Compare the entries in the right hand column of Table 1, entitled 'Total', with your expected numbers, year by year. Would you say the trend 'observed' until 1984 corresponds to your expectation? Yes ☐ No ☐

Has the 1984 target been achieved? Yes ☐ No ☐

Comments:

Table 1. Cases of neonatal tetanus in Jaya's 27 Villages, 1979-84

Yr \ Village	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	Total
'79	3	1	1	1	1	1	1	1	1	1	1																	13
'80	1		1	1			1		1	1	1					1	1						1					10
'81	1	1			1		1			1			1	1		1				1						1	1	11
'82					1					1	1			1		1			1			1				1	1	9
'83			1				1		1	1				1						1			1				1	8
'84	1		1		1		1			1				1													1	7
$\bar{m}$																												-

EXERCISE C.2

Study the yearly incidence of neonatal tetanus in villages A to K (in which all the cases observed in 1979 occurred). For each of them calculate the mean annual incidence, by using the formula: (total number of cases 1980-84):5. Enter your results in the bottom line of Table 1, entitled: $\overline{m}$ (this is the symbol for mean, or average). Compare the village means. They tell you something regarding the accessibility and effectiveness of services against neonatal tetanus. On which village(s) would you focus your attention to ensure better services? List them here in order of priority:
1) .... 2) .... 3) ....

EXERCISE C.3

Now study villages L to AA (in which there had been no cases of neonatal tetanus in 1979). As time goes on, cases appear in those villages. In 1982, for instance, cases in villages L to AA have occurred more frequently than in villages A to K. What could the reason (s) for this shift?

At the end of the Plan period, however, we are again seeing more cases in villages A to K than in L - AA. Over the entire period, villages N and AA have the highest experience of the disease. Do these villages fare worse than those in the group A - K? Yes ☐ No ☐

How would you prove your point?

EXERCISE C.4

Table 1 has one serious shortcoming. What information would you suggest to add to the table to make evaluation more meaningful and easy? (One single piece of information only!)

I should add:

Evaluating work progress

Pursuing our evaluation of Jaya district, you are now receiving Table 2 below, which represents the 1980 operational achievements for neonatal tetanus control. This table gives 1) the numbers of retrained TBAs, 2) the number practising TBAs and 3) the retraining coverage as a percentage of 2); then 4) the number of immunized women, 5) the estimated numbers of pregnant women and 6) their coverage; finally the numbers of messages diffused by village heads. These numbers are given by village and in total for the district. Study this table and proceed to Exercise C.5.

EXERCISE C.5

Assume the 1980 targets to be: Retrain 20% of practising TBAs; Immunize 60% of pregnant women; 90% of village heads diffuse 5 messages or more. Answer the following questions:

- Has the TBA retraining programme achieved its target for the district? (For this purpose compute district totals calculate percentages and compare with the target).

Yes ☐ No ☐

- In how many villages has retraining been completed?........ In how many is it underway?........ In how many has retraining not started? ....

- List the villages where immunization targets have been fulfilled: ....
....

- List the villages where communication targets have NOT been fulfilled ....
.... and compute the district communication coverage (% villages with 5 or more messages) ....

EXERCISE C.6

Focus on villages E, J and U. What have they in common?

How many villages would you have expected to fulfil similar achievements in 1980? (Hint: assume that all 27 villages should be fully covered by 1984).

How would you qualify work progress on the basis of the three villages, E, J and U?

EXERCISE C.7

Focus on villages B, D, H, K, and Y. What common pattern do you see in these five villages?

How many cases of neonatal tetanus occurred in 1980 in these five villages (extract this information from Table 1 on page 354

Table 2. Operational achievements in neonatal tetanus control, Jaya District, 1981

OP Outputs \ Village	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	Total
1) No. of retrained TBAs	1	-	1	-	1	1	-	-	-	1	-	1	-	-	1	-	-	1	-	-	1	-	-	-	-	-	-	
2) No. of practising TBAs	2	1	3	1	2	4	-	1	2	3	1	1	2	1	3	1	2	1	1	1	2	1	1	2	1	1	1	
3) 1:2 as %	50		55		50	25				33		100			33			100			50							
4) No. of immunized pregnant women	200	160	220	200	180	200	0	150	150	250	100	100	100	30	120	100	30	80	100	100	160	30	100	90	120	130	100	3000
5) No. of pregnant women (estimate)	400	200	400	300	300	400	100	250	300	400	150	350	200	200	300	300	200	100	400	250	200	200	300	200	200	250	300	6900
6) 4:5 as %	50	30	55	66	60	50	0	60	50	60	66	30	50	15	40	33	40	80	25	40	80	40	33	45	60	50	33	45
7) No. of messages % vill. chiefs sending 5 or more messages	5	8	5	7	7	5	-	6	4	5	8	1	4	-	7	4	4	6	-	3	5	5	2	4	7	5	3	-

Focus now on villages A, C, F, O, R. Describe their common pattern:

How many cases of neonatal tetanus occurred in 1981 in these five villages? (Table 1)

Comment on the results of the programme in these two groups of villages:

different? ☐ not different ☐ can't say ☐

EXERCISE C.8

There are 14 villages in which no activity, or at most one activity reached the target outputs. Identify them.................................. .

How many cases of neonatal tetanus occurred in these villages in 1981? ....

Is this experience different from that in the village studied in Exercise B.2?

different? ☐ not different ☐ can't say ☐

Is it different from that in villages E. J. U?

different ☐ not different ☐ can't say ☐

Performance appraisal

Assume that the results in Table L (Exercise A) and the operational achievements in Table 2 (Exercise B) are available to you to appraise the performance of two of your staff, called A and L. They are of equal seniority and qualifications. One (A) was responsible for programme implementation in villages A - K, the other (L) in villages L - AA.

EXERCISE C.9

How would you assess their workload (Think of the target population groups):

Who has the more work? A ☐; L ☐;

EXERCISE C.10

Compare results and achievements in the villages for which A was responsible with those in the villages for which L was responsible:

Staff Villages	A A - K	L L - AA
% retrained TBAs:		
% immunized women:		
Number of messages diffused:		
Number of villages fulfilling 2 or 3 targets:		

EXERCISE C.11

Based on the comparison above, comment on the performance of staff members A and L:

Can you think of one factor other than workloads of staff members A and L which might explain the different results and achievements in villages A - K and in villages L - AA?:

EXERCISE C.12

Assume the difference observed between targets and achievements is not due to workloads, or to the factor you described in Exercise C.3, but to differences in abilities of staff members A and L. Name three abilities which you think could have made the difference between A's and L's performances.

1)
2)
3)

How would you assess if one of them actually made the difference? Name the steps

1)
2)
3)
4)
5)

Suggest an indicator of performance:

List the information required to assess performance:

Glossary

GLOSSARY

Some Words used in Management

The simplified definitions that follow are intended solely for use with this Guide, and are not necessarily valid for other purposes.

account	a record of money received or of money spent, or both.
activities	a group of tasks with a common purpose.
authority	the right to make decisions and enforce them when necessary.
baseline year	the first year in which information was collected and analysed before the beginning of a project or programme.
budget	a detailed estimate of the cost of a programme during a specific period.
check-list	a list of items or descriptions of actions to be looked at, one at a time, to ensure that no item or action is overlooked.
communication	the transmission of meaning from one individual or group, by any means, to another individual or group.
constraint	see limitation or obstacle
control	watching the activities and results of a programme to make sure it is achieving its intended results.
coordinate	to bring the activities of different persons in the same or related programmes into relation with one another in such ways that their common goal(s) is efficiently achieved.
criterion (plural: criteria)	a guide or standard against which something is judged, or which is used as a basis for making a decision.
death rate	the proportion of deaths that occur in a population of specified size during a specified period of time. The population size and the period of time may vary, as appropriate.
decision	a choice made between two or more alternatives.
decision-making chart	a chart showing different possibilities for action, intended to assist the making of decisions.
delegation of authority	the action of a person in entrusting authority, for a specific purpose, to another person.
development	the economic growth of a society together with social improvements (for example, in health, education and housing).

discrepancy	a difference between what is expected and what is found.
educational objective (learning objective)	what the learner should be able to do at the end of a period of instruction that he/she could not do before.
evaluation	a judgement of value, based on measuring or assessing the results of a programme or activity.
facilities	the buildings and material goods available for a programme or activity.
felt needs	see needs.
form	a document on which information of a certain type is to be inserted in a definite arrangement.
functional chart	see organizational chart
goal	the intended result or achievement of a programme or activity.
guidelines	a number of suggestions about how to proceed with a plan or activity.
health centre	the place where a health team is based and from which health service is given to individuals and communities.
health unit	any distinct section of a health service, such as a dispensary, a health centre, a hospital.
health planning	the process of defining community health problems, identifying needs and resources, establishing priority goals, and setting out the administrative action needed to reach those goals.
health policies	course or general plan of action to be adopted to deal with health problems or to promote health.
health status (or level of health)	the degree to which the health of a specified population meets accepted criteria.
implementation	putting a programme into action; doing the work.
incidence of a disease	the number of new cases of a specified disease that occur in a given population during a specified period of time (for example, a month or a year). (Incidence is often expressed as a rate, that is, as a proportion of the total population during the specified period of time).
indicator (health)	as indirect measure (usually a rate or ratio) of the level of community health, (e.g. infant mortality rate of 90/1000 indicates a low level of community health; a fall in the neonatal tetanus rate from 40/1000 to 10/1000 indicates indirectly an improvement in community health).

information system	a group of people, procedures, methods and perhaps machines and other equipment for the processing of information.
limitation	a deficiency of a necessary resource (manpower, materials money).
management	planning, organizing, directing and controlling.
motivation	what causes a person to act in a particular way.
needs	felt needs: needs recognised by a community of people
	real needs: needs recognised as a result of professional or technical information
obstacle	a difficulty preventing a programme activity
objectives	see goals. (See also page 286).
organizational chart	a chart showing functions and lines of authoritity and communication within an organization.
organizational structure	the formal defined relations between people who work together.
output	the result of an activity. In a factory, the output is a product; in health work, the output is a service.
plan	a statement of goals and objectives and of the courses of action and resources necessary to achieve them.
population density	the number of persons living in a specified area (usually one square kilometer)
priority	the order of importance
problem	a present unsatisfactory state that is difficult to change to a desired future state.
processing information	analysing and retrieving information, and supplying it to intended users.
programme	a group of activities and resources directed to achieving a definite objective.
resources	means of supplying or achieving what is needed.
responsibility	a task or duty for which one is liable to be called to account.

supervision	making sure that staff perform their duties effectively. It means that a supervisor helps and guides the staff for whom he is responsible and trains them as necessary, in such a way that they become more competent in their work.
systematic problem-solving process	a step-by-step method of looking for a solution to a problem.
target	an objective which is time-limited and can be measured.

* * * *

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